

UNION PACIFIC SYSTEM

OREGON-WASHINGTON RAILROAD & NAVIGATION COMPANY

First Division

EMPLOYEES' TIME-TABLE



To Take Effect Sunday, June 1, 1930

at 12:01 A. M. Pacific Time

For the government and information of employees only, and not intended for the use of the public.
The right is reserved to vary from this time-table at pleasure.

874

J. P. O'BRIEN,
GENERAL MANAGER.

F. N. FINCH,
GENERAL SUPERINTENDENT.

G. L. WHIPPLE,
GENERAL SUPERINTENDENT TRANSPORTATION.

FIRST DIVISION

A. BUCKLEY,
Superintendent, Portland, Oregon.

J. F. CORBETT,
Assistant Superintendent, Portland, Oregon.

B. A. DANES,
Trainmaster, Portland, Oregon.

H. M. TURNER,
CHIEF TRAIN DISPATCHER, Portland, Oregon.

B. B. JOHNSON,
NIGHT CHIEF TRAIN DISPATCHER, Portland, Oregon.

E. M. RINGER, TRAIN DISPATCHER.....Portland, Oregon.

C. E. SHEPPARD, TRAIN DISPATCHER.....Portland, Oregon.

W. A. MILNER, TRAIN DISPATCHER.....Portland, Oregon.

W. W. SMITH, TRAIN DISPATCHER.....Portland, Oregon.

L. L. RUDD, TRAIN DISPATCHER.....Portland, Oregon.

P. T. MCCARTHY, TRAIN DISPATCHER.....Portland, Oregon.

C. D. BROWN, TRAIN DISPATCHER.....Portland, Oregon.

O. H. NEWMAN, TRAIN DISPATCHER.....Portland, Oregon.

MILEAGE

FIRST DIVISION	Main Line.....	385.83	
	Branches.....	410.88	
	Total.....		796.71
SECOND DIVISION	Main Line.....	233.26	
	Branches.....	97.84	
	Total.....		331.10
THIRD DIVISION	Main Line.....	183.64	
	Branches.....	740.25	
	Total.....		923.89
	Total, Main Line.....	802.73	
	Total, Branches.....	1248.97	
	Total.....		2051.70

Time per Mile	Miles per Hour
51"	70.6
52"	69.2
53"	67.9
54"	66.6
55"	65.4
56"	64.2
57"	63.1
58"	62
59"	61
1'	60
1' 1"	59
1' 2"	58
1' 3"	57.1
1' 4"	56.2
1' 5"	55.3
1' 6"	54.5
1' 7"	53.7
1' 8"	52.9
1' 9"	52.1
1' 10"	51.4
1' 12"	50
1' 15"	48
1' 20"	45
1' 25"	42.3
1' 30"	40
1' 40"	36
1' 45"	34.3
1' 50"	32.7
2'	30
2' 10"	27.6
2' 15"	26.6
2' 20"	25.7
2' 30"	24
2' 40"	22.5
2' 45"	21.8
2' 50"	21.2
3'	20
3' 9"	19
3' 20"	18
3' 31"	17
3' 45"	16
4'	15
5'	12
6'	10
7' 30"	8
10'	6

CONDENSED TIME-TABLE

WESTWARD

Huntington and Portland

EASTWARD

SECOND CLASS		FIRST CLASS					Distance from Huntington	Time-Tables Nos. 37-73 June 1, 1930	Distance from Portland	FIRST CLASS					SECOND CLASS	
251 Time Freight	255 Time Freight	17 Passenger	11 Passenger	5 Mail	23 Passenger	19 Passenger				20 Passenger	18 Passenger	12 Passenger	6 Passenger	24 Passenger	252 Time Freight	254 Time Freight
Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	STATIONS	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily		
	5.00AM		7.10PM		6.15PM	2.35PM	HUNTINGTON	11.35PM	6.25AM		10.50AM	1.35PM		1.01PM		
	10.50AM		10.40PM		9.05PM	6.45PM	LA GRANDE	8.00PM	3.00AM		7.25AM	10.00AM		3.30AM		
			1.40AM		11.32PM	10.05PM	PENDLETON	4.50PM	11.52PM		4.25AM	6.45AM				
	6.00PM						RIETH							5.00PM		
1.00PM			2.35AM	1.00AM	1.15AM		UMATILLA			1.50AM	2.40AM	5.00AM		8.00AM		
8.00PM	1.45AM		5.20AM	5.00AM	3.45AM	4.30AM	THE DALLES	12.50PM	8.25PM	11.20PM	11.35PM	1.10AM		1.45AM		
			8.00AM	7.35AM	6.10AM	7.15AM	PORTLAND	9.40AM	6.00PM	9.00PM	9.10PM	10.45PM		2.45AM		
3.00AM	8.15AM						ALBINA							8.30PM		
Arrive Daily	Arrive Daily		Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	(389.5)							Leave Daily		
(14.00) 12.7	(27.15) 14.4		(12.50) 30.4	(5.00) 36.6	(11.55) 33.5	(16.40) 23.9	(14.25) 27.0	Thru Time.....	(13.55) 27.9	(12.25) 31.4	(4.50) 37.8	(13.40) 29.2	(14.50) 26.9	(11.30) 15.5	(39.31) 9.9	
								Average Speed per Hour.....								

EASTWARD

Seattle and Portland

WESTWARD

SECOND CLASS		FIRST CLASS								Distance from Seattle	Time-Table No. 73 June 1, 1930	Distance from Portland	FIRST CLASS										SECOND CLASS
692 Time Freight	36 CMSt.P&P Passenger (8)	42 CMSt.P&P Passenger (7)	34 CMSt.P&P Passenger (16)	40 CMSt.P&P Passenger (18)	38 CMSt.P&P Passenger (15)	1 CMSt.P&P Passenger	32 CMSt.P&P Passenger (17)	564 Passenger	562 Passenger				561 Passenger	563 Passenger	31 CMSt.P&P Passenger (17)	39 CMSt.P&P Passenger (18)	37 CMSt.P&P Passenger (15)	33 CMSt.P&P Passenger (16)	41 CMSt.P&P Passenger (7)	2 CMSt.P&P Passenger	35 CMSt.P&P Passenger (8)	691 Time Freight	
Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily			
	10.00PM	6.45PM	6.15PM	9.30AM	9.25AM	8.00AM	7.45AM	11.15PM	11.10AM	4.45PM	6.30AM	7.30AM	9.05AM	9.15AM	6.00PM	6.30PM	9.00PM	9.30PM	9.30PM	6.45AM			
6.25PM	10.09PM	6.54PM	6.24PM	9.39AM	9.34AM	8.09AM	7.54AM			3.20PM	5.00AM	7.21AM	8.56AM	9.06AM	5.51PM	6.21PM	8.51PM	9.21PM	9.21PM	5.00AM			
8.40PM								12.40AM	12.35PM												12.30AM		
12.05AM								2.40AM	2.10PM												7.30PM		
7.35AM										11.00AM	11.15PM										11.15PM		
Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily			
(13.10) 13.5	(0.09) 20.6	(0.09) 20.6	(0.09) 20.6	(0.09) 20.6	(0.09) 20.6	(0.09) 20.6	(0.09) 20.6	(7.00) 26.2	(6.00) 30.5	(5.45) 31.9	(7.15) 25.2	(0.09) 20.6	(0.09) 20.6	(0.09) 20.6	(0.09) 20.6	(0.09) 20.6	(0.09) 20.6	(0.09) 20.6	(0.09) 20.6	(0.09) 20.6	(11.15) 15.9		

WESTWARD

Spokane-Umatilla-Pendleton

EASTWARD

SECOND CLASS		FIRST CLASS					Distance from Spokane	Time-Table No. 39 June 1, 1930	Distance from Pendleton-Umatilla	FIRST CLASS					SECOND CLASS	
251 Time Freight	45 Passenger	75 Passenger	73 Passenger	11 Passenger	77 Passenger	12 Passenger				76 Passenger	74 Passenger	78 Passenger	46 Passenger	252 Time Freight	254 Time Freight	
Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Arrive Daily	STATIONS	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily			
	9.45PM				9.20PM	7.30AM	SPOKANE	7.00AM			7.20PM		12.30AM			
					6.00PM		MOSCOW									
					9.30PM	9.20PM	RIPARIA			5.35AM	5.45AM	1.55PM				
	3.00AM				10.10PM		AYER	4.15AM	5.00AM				4.00PM			
	7.45AM				3.45AM	12.15AM	WALLULA	2.50AM	3.35AM				12.01PM			
	9.15AM				1.00AM	2.35AM	UMATILLA	1.50AM	2.45AM				10.30AM			
							STARBUCK									
					5.15AM		WALLA WALLA									
							PENDLETON									
Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	(251.4)	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily			
(11.30) 16.0		(1.30) 20.7	(3.30) 28.0	(3.20) 26.4	(5.15) 35.1	(9.15) 27.2	Thru Time.....	(5.10) 35.7	(2.50) 34.6	(3.30) 25.1	(9.35) 28.2	(1.10) 26.7	(14.00) 13.2			
							Average Speed per Hour.....									

WESTWARD

FOURTH SUBDIVISION

SECOND CLASS

FIRST CLASS

Length of sidings in feet and location of water, fuel, ice, telegraph, tele-phones, etc.

Length of sidings in feet and location of water, fuel, ice, telegraph, tele-phones, etc.	STATIONS	SECOND CLASS		FIRST CLASS							Distance from Huntington
		251	255	19	29	27	17	11	23	5	
		Time Freight	Time Freight	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Mail	
		Leave Daily	Leave Daily	Leave Daily	Leave Daily Ex. Sun.	Leave Sun.	Leave Daily	Leave Daily	Leave Daily	Leave Daily	
WFTYP		1.00PM						2.35AM	1.15AM	1.00AM	215.8
3,110 P		1.12						2.41	1.33	1.06	220.0
3,200 P		1.22						2.45	1.39	1.12	223.2
3,200 P		1.34						2.50	1.45	1.20	226.9
6,218 WFYP		1.54	7.45PM	s11.40AM			3.15AM	3.00	s 1.55	1.30	223.9
650		2.00	7.52	f11.43			3.18	3.03	1.58	1.33	225.7
4,900 P		2.05	7.58	11.47			3.22	3.06	2.01	1.36	227.5
4,904 P		2.16	8.10	11.52AM			3.30	3.11	2.06	1.41	231.4
5,190 P		2.37	8.25	12.01PM			3.37	3.18	2.14	1.48	237.2
824 TP		2.52	8.35	12.07			3.43	3.23	s 2.20	s 1.56	241.2
5,001 P		2.57	8.40	12.10			3.45	3.25	2.22	1.59	242.7
4,924 P		3.13	8.50	12.17			3.50	3.31	2.30	2.05	247.1
WB 6,296 EB 5,906 WTP		3.30	9.05	s12.27			s 3.56	s 3.37	s 2.40	s 2.12	251.7
4,940 P		3.45	9.36	12.32			4.02	3.42	2.47	2.18	255.4
4,946 WP		4.00	9.53	f12.40			4.08	3.48	2.55	2.26	259.9
4,917 P		4.14	10.06	12.46			4.14	3.53	3.03	2.31	263.9
4,892 P		4.25	10.15	12.50			4.18	3.56	3.07	2.35	266.3
5,000 P		4.40	10.30	12.58			4.23	4.02	3.15	2.40	270.6
4,947 P		4.56	10.45	1.04			4.28	4.07	3.22	2.45	274.6
5,165 WP		5.06	10.56	1.08			4.32	4.11	3.28	2.49	277.4
5,000 P		5.16	11.05	f 1.13			4.36	4.15	3.33	2.53	280.1
4,926 P		5.26	11.14	1.18			4.40	4.19	3.37	2.57	282.7
6,656 YP		5.40	11.24	1.25			4.44	4.24	s 3.42	s 3.01	285.6
752 WP		5.48	11.30	s 1.30	1.15PM	1.15PM	4.47	4.27	3.47	3.04	287.7
2,750		5.56	11.35	1.33	f 1.18	f 1.18	4.49	4.29	3.50	3.06	289.2
2,625		6.14	11.45	1.39	f 1.24	f 1.24	4.54	4.34	3.58	3.13	293.1
											293.5
P		6.18	11.53PM	1.41	1.26	1.26	4.56	4.36	4.01	3.15	294.3
Spur											296.0
3,678		6.35	12.05AM	1.46	1.31	1.31	5.01	4.41	4.10	3.20	297.8
											300.9
Spur											301.8
WFTOP		6.55PM	12.25AM	2.00PM	1.45PM	1.45PM	5.15AM	4.55AM	4.25AM	3.35AM	305.3
		Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily Ex. Sun.	Arrive Sun.	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	

Time-Table No. 73

June 1, 1930

STATIONS

DN-R	UMATILLA	Cs
	4.2	
	BAILEY	
	3.2	
	IRRIGON	
	3.7	
	JUDSON	
	6.3	
DN-R	MESSNER	Fo
	1.8	
	BOARDMAN	Bd
	1.8	
	PETERS	
	3.9	
	CASTLE	
	5.8	
	BOULDER	
	4.0	
N	HEPPNER JCT.	Wi
	1.5	
	WILLOWS	
	4.4	
	SILICA	
	4.6	
DN	ARLINGTON	Mr
	3.7	
	GILMORE	
	4.5	
	BLALOCK	
	4.0	
	RAMSAY	
	2.4	
N	QUINTON	Qn
	4.3	
	HOOK	
	4.0	
	GOFF	
	2.8	
	DAY	
	2.7	
	RUFUS	
	2.6	
	GRANT	
	2.9	
DN	BIGGS	Bx
	2.1	
D	SHERMAN	Vo
	1.5	
	MILLER	
	2.9	
	CELLO	
	0.4	
	TUMWATER	
	0.8	
	OREGON TRUNK JCT.	
	1.7	
	DILLON	
	1.8	
	DUNE	
	3.1	
	BIG EDDY	
	0.9	
	SEUFERT	
	3.5	
DN-R	THE DALLES	Dk-Wh

Block Signals

Block Signals

Double Track

W. B.—Westward Siding.
E. B.—Eastward Siding.

(5.55) (4.40)
16.7 17.4

(2.20) (0.30) (0.30) (2.00) (2.20) (3.10) (2.35)
34.8 35.2 35.2 40.7 42.3 31.2 38.2

..... Thru Time
..... Average Speed per Hour

Westward trains are superior to trains of the same class in the opposite direction.—See Rule 72.

FOURTH SUBDIVISION

EASTWARD

FIRST CLASS

SECOND CLASS

Time-Table No. 73

June 1, 1930

Distance from Portland

STATIONS	Distance from Portland	FIRST CLASS						SECOND CLASS		
		24 Passenger	20 Passenger	30 Passenger	18 Passenger	12 Passenger	6 Passenger	252 Time Freight	254 Time Freight	256 Time Freight
Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	
DN-R UMATILLA Cn	183.0	4.45AM				1.40AM	2.30AM			
4.2 BAILEY	178.8	4.30				1.33	2.22			
3.2 IRRIGON	175.6	4.18				1.27	2.14			
3.7 JUDSON	171.9	4.06				1.20	2.06			
6.3 DN-R MESSNER Fe	165.6	3.47	3.00PM		10.20PM	1.10	1.55			
1.8 BOARDMAN Bd	163.8	3.42	2.54		10.17	1.07	1.40			
1.8 PETERS	162.0	3.38	2.51		10.14	1.05	1.36			
3.9 CASTLE	158.1	3.30	2.45		10.09	1.00	1.28			
5.8 BOULDER	152.3	3.18	2.37		10.02	12.53	1.18			
4.0 N HEPPNER JCT. Wi	148.3	3.04	2.32		9.57	12.48	1.11			
1.5 WILLOWS	146.8	3.00	2.29		9.55	12.46	1.08			
4.4 SILICA	142.4	2.50	2.22		9.49	12.40	1.00			
4.6 DN ARLINGTON Mx	137.8	2.40	2.15		9.42	12.34	12.53			
3.7 GILMORE	134.1	2.32	2.09		9.36	12.29	12.48			
4.5 BLALOCK	129.6	2.26	2.03		9.30	12.23	12.42			
4.0 RAMSAY	125.6	2.16	1.57		9.24	12.18	12.37			
2.4 N QUINTON Qn	123.2	2.12	1.54		9.20	12.15	12.34			
4.3 HOOK	118.9	2.06	1.48		9.14	12.10	12.28			
4.0 GOFF	114.9	2.00	1.42		9.09	12.05	12.22			
2.8 DAY	112.1	1.56	1.38		9.05	12.01AM	12.18			
2.7 RUFUS	109.4	1.52	1.34		9.02	11.57PM	12.14			
2.6 GRANT	106.8	1.48	1.30		8.59	11.54	12.11			
2.9 DN BIGGS Bx	103.9	1.43	1.25		8.55	11.50	12.07			
2.1 D SHERMAN Vo	101.8	1.40	1.20	1.30PM	8.52	11.47	12.04			
1.5 MILLER	100.3	1.37	1.17	1.27	8.49	11.44	12.01AM			
3.9 CELILO	96.4	1.31	1.11	1.21	8.44	11.39	11.56PM			
0.4 TUMWATER	96.0									
0.8 OREGON TRUNK JCT.	95.2	1.29	1.09	1.19	8.42	11.37	11.54			
1.7 DILLON	93.5									
1.8 DUNE	91.7	1.24	1.04	1.14	8.38	11.33	11.49			
3.1 BIG EDDY	88.6									
0.9 SEUFERT	87.7									
3.5 DN-R THE DALLES Dk-Wh	84.2	1.10AM	12.50PM	1.00PM	8.25PM	11.20PM	11.35PM	1.45AM	2.45AM	9.55PM
(98.8)		Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily

Thru Time.....	(3.35)	(2.10)	(0.30)	(1.55)	(2.20)	(2.55)	(6.15)	(5.05)	(4.55)
Average Speed per Hour.....	27.5	37.6	35.2	42.4	42.3	33.8	15.8	15.9	16.5

Westward trains are superior to trains of the same class in the opposite direction.—See Rule 72.

FIFTH SUBDIVISION

EASTWARD

Time-Table No. 73

June 1, 1930

STATIONS	Distance from Portland	FIRST CLASS							SECOND CLASS				
		20	561	18	12	6	24	563	977	691	256	252	254
		Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Way Freight	Time Freight	Time Freight	Time Freight	Time Freight
DN-R THE DALLES Dk-Wh	84.2	12.40PM		8.20PM	11.15PM	11.30PM	1.05AM						
CRATES	81.7	12.31		8.13	11.08	11.23	12.58						
ROWENA	76.1	12.22		8.02	10.57	11.12	12.47						
CHATFIELD	72.5	12.15		7.56	10.51	11.06	12.41						
D MOSIER H	69.2	12.08PM		7.50	10.45	11.00	12.36						
DN HOOD RIVER Ki	63.2	11.55AM		7.38	10.33	10.48	12.24						
MENO	59.1	11.47		7.30	10.25	10.40	12.16						
SONNY	57.5	11.44		7.28	10.23	10.38	12.14						
LINDSEY	52.9	11.35		7.20	10.16	10.30	12.06						
WYETH	49.7	11.28		7.15	10.11	10.25	12.01AM						
FARLEY	46.8	11.22		7.11	10.07	10.21	11.56PM						
DN CASCADE LOCKS Cj	42.9	11.13		7.05	10.02	10.15	11.50						
EAGLE CREEK	40.1												
D BONNEVILLE Mu	38.7	11.03		6.58	9.56	10.08	11.43						
WARRENDALE	35.8												
DODSON	34.1	10.54		6.52	9.50	10.02	11.37						
ONEONTA	31.4	10.48		6.49	9.47	9.59	11.34						
MULTNOMAH FALLS	29.6												
D BRIDAL VEIL Ju	26.3	10.38		6.43	9.41	9.53	11.28						
LATOURELL	23.9												
ROOSTER ROCK	22.4	10.30		6.38	9.36	9.48	11.23						
CORBETT	20.4												
TAYLOR	19.1	10.23		6.34	9.32	9.44	11.19						
DN TROUTDALE Sn	15.6	10.16		6.30	9.28	9.40	11.15						
FAIRVIEW Fa	13.2	10.12		6.26	9.24	9.36	11.11						
CLARNIE	7.7	10.00		6.18	9.17	9.28	11.03						
GRAHAM	4.4	9.53		6.12	9.12	9.22	10.57						
BRUN	1.9	9.47		6.07	9.07	9.17	10.52						
HEMLOCK	17.0												
WARD	14.2												
FIR	12.3												
ADAMSBORO	10.3												
KENTON	6.8												
PENINSULA JCT.	5.6												
DN NORTH PORTLAND JCT. ID	6.8												
PENINSULA JCT.	5.6												
PENINSULA JCT.	5.6												
ST. JOHNS JCT.	4.1												
MILLROAD	2.9												
DN-R ALBINA B	1.6												
HARDING ST.	1.5												
EAST PORTLAND	0.6												
UNITED RY. CROSSING	0.3												
DN-R PORTLAND Dispr. X P-So-Vc	0.0												
(84.2)													

Block Signals

Staff Signals

Block Signals

Thru Time..... (3.00) (0.19) (2.20) (2.15) (2.20) (2.20) (0.23)
 Average Speed per Hour..... 28.0 21.4 36.1 37.4 36.1 36.1 17.7

(0.30) (0.30) (3.50) (4.00) 4.25
 10.4 10.4 25.6 22.2 (20.1)

Westward trains are superior to trains of the same class in the opposite direction.—See Rule 72.

Between Peninsula Jct. and St. Johns Jct. trains will be governed by train staff rules. See Rules 409 (A) to 409 (S) inclusive. Trains and engines will be governed by Northern Pacific Terminal Company's rules and regulations while in their yard at Portland.

EASTWARD

SIXTH SUBDIVISION

Length of sidings in feet and location of water, fuel, interlocking stations, scales and tele-phones.	SECOND CLASS				FIRST CLASS										Distance from Seattle	Time-Table No. 73	
	978		692		564	36	42	34	562	40	38	1	32	June 1, 1930			
	Way Freight	Time Freight	Passenger	CMSt.P&P Passenger (8)	CMSt.P&P Passenger (7)	CMSt.P&P Passenger (16)	Passenger	CMSt.P&P Passenger (18)	CMSt.P&P Passenger (15)	CMSt.P&P Passenger	CMSt.P&P Passenger (17)						
	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	0.0	STATIONS		
P					11.15PM	10.00PM	6.45PM	6.15PM	11.10AM	9.30AM	9.25AM	8.00AM	7.45AM	1.9	DN-R SEATTLE Ow		
														1.9	G. N. CROSSING		
														1.9	N. P. CROSSING		
WFITYOP		6.25PM			11.24	10.09PM	6.54PM	6.24PM	11.19	9.39AM	9.34AM	8.09AM	7.54AM	3.1	DN-R ARGO G		
I															C.M.St.P.&P.&P.C.CROSSING		
1,354 1,401	P		6.45PM		11.32PM				11.30AM					9.4	DN-R BLACK RIVER Bi		

BETWEEN TACOMA JCT. AND BLACK RIVER, TRAINS WILL BE GOVERNED BY TIME-TABLE RULES AND REGULATIONS OF CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC RY.

P															35.7	DN TACOMA JCT. Jn
I		8.20PM													36.4	DN RESERVATION Rn
		8.30PM													36.5	N. P. CROSSING
															36.7	N. P. CROSSING
															36.7	N. P. CROSSING
															36.8	N. P. CROSSING
															38.0	N. P. CROSSING

BETWEEN VANCOUVER AND RESERVATION, TRAINS WILL BE GOVERNED BY TIME-TABLE, RULES AND REGULATIONS OF NORTHERN PACIFIC RY.

BETWEEN NORTH PORTLAND JCT. AND VANCOUVER, TRAINS WILL BE GOVERNED BY TIME-TABLE, RULES AND REGULATIONS OF SPOKANE, PORTLAND & SEATTLE RY.

IP		12.15PM	6.00AM													176.4	NORTH PORTLAND JCT.
1,415	YP															177.6	PENINSULA JCT.
	P															179.1	ST. JOHNS JCT.
	P															180.3	MILLROAD
	P															181.6	ALBINA
	P	12.55PM	7.35AM													181.7	HARDING ST.
	IP															182.6	EAST PORTLAND
	IP															182.9	UNITED RY. CROSSING
	IP															183.2	PORTLAND
		Arrive Daily	Arrive Daily														183.2

(0.40) (13.10) (7.00) (0.09) (0.09) (0.09) (6.00) (0.09) (0.09) (0.09) (0.09) (0.09) Thru Time
7.8 13.5 26.2 20.6 20.6 20.6 30.5 20.6 20.6 20.6 20.6 Average Speed per Hour

Westward trains are superior to trains of the same class in the opposite direction.—See Rule 72.

Time shown between Portland and North Portland Jct. is for information only. Trains will be governed by Fifth Subdivision time-table between Portland and North Portland Jct.

SIXTH SUBDIVISION

WESTWARD

Time-Table No. 73

June 1, 1930

STATIONS	Distance from Portland	FIRST CLASS										SECOND CLASS				
		563	31	39	37	561	33	41	2	35					691	977
		Passenger	CMSt.P&P Passenger (17)	CMSt.P&P Passenger (18)	CMSt.P&P Passenger (15)	Passenger	CMSt.P&P Passenger (16)	CMSt.P&P Passenger (7)	CMSt.P&P Passenger	CMSt.P&P Passenger (8)					Time Freight	Way Freight
DN-R SEATTLE 1.9 Ow	183.2	6.30AM	7.30AM	9.05AM	9.15AM	4.45PM	6.00PM	6.30PM	9.00PM	9.30PM					Arrive Daily	Arrive Daily Ex. Sun.
G. N. CROSSING 0	181.3															
N. P. CROSSING 1.2	181.3															
DN-R ARGO 0.3 G	180.1	6.20	7.21AM	8.56AM	9.06AM	4.36	5.51PM	6.21PM	8.51PM	9.21PM				6.45AM		
C.M.St.P.&P.&P.C. CROSSING 0.0																
DN-R BLACK RIVER 0.0 Bi	173.8	6.00AM				4.20PM								6.25AM		

BETWEEN TACOMA JCT. AND BLACK RIVER, TRAINS WILL BE GOVERNED BY TIME-TABLE, RULES AND REGULATIONS OF CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC RY.

DN TACOMA JCT. 0.7 Jn	147.5	5.10AM				3.29PM									5.15AM	
DN RESERVATION 0.1 Rn	146.8	5.06AM				3.26PM									5.10AM	
N. P. CROSSING 0.2	146.7															
N. P. CROSSING 0.0	146.5															
N. P. CROSSING 0.1	146.5															
N. P. CROSSING 1.2	146.4															
N. P. CROSSING 0.0	145.2															

BETWEEN VANCOUVER AND RESERVATION, TRAINS WILL BE GOVERNED BY TIME-TABLE, RULES AND REGULATIONS OF NORTHERN PACIFIC RY.

BETWEEN NORTH PORTLAND JCT. AND VANCOUVER, TRAINS WILL BE GOVERNED BY TIME-TABLE, RULES AND REGULATIONS OF SPOKANE, PORTLAND & SEATTLE RY.

Staff Block System Sign's NORTH PORTLAND JCT. 1.2	6.8	11.38PM				11.20AM									8.00PM	6.50AM
PENINSULA JCT. 1.5	5.6															
ST. JOHNS JCT. 1.2	4.1															
MILLROAD 1.3	2.9															
ALBINA 0.1	1.6														7.30PM	6.20AM
HARDING ST. 0.9	1.5															
EAST PORTLAND 0.3	0.6															
UNITED RY. CROSSING 0.3	0.3															
PORTLAND 0.0 (183.2)	0.0	11.15PM				11.00AM										
		Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily				Leave Daily	Leave Daily Ex. Sun.	

Thru Time.....	(7.15)	(0.09)	(0.09)	(0.09)	(5.45)	(0.09)	(0.09)	(0.09)	(0.09)					(11.15)	(0.30)
Average Speed per Hour.....	25.2	20.6	20.6	20.6	31.9	20.6	20.6	20.6	20.6					16.3	10.4

Westward trains are superior to trains of the same class in the opposite direction.—See Rule 72.

Time shown between Portland and North Portland Jct. is for information only. Trains will be governed by Fifth Subdivision time-table between Portland and North Portland Jct.

		WESTWARD					BEND BRANCH					EASTWARD				
		SECOND CLASS		FIRST CLASS			Distance from Bend	Time-Table No. 73 June 1, 1930	Distance from Sherman	FIRST CLASS		SECOND CLASS				
		313 Time Freight	311 O. T. Ry. Through Freight	103 O. T. Ry. Passenger	29 Passenger	27 Passenger				30 Passenger	102 O. T. Ry. Mixed	310 O. T. Ry. Through Freight	314 Time Freight			
Length of sidings in feet and location of water, fuel, interlocking plants, turning stations, scales and tele-phones.		Leave Daily	Leave Daily Ex. Mon.	Leave Daily	Leave Daily Ex. Sun.	Leave Sun.	STATIONS	Arrive Daily	Arrive Daily	Arrive Daily Ex. Mon.	Arrive Daily					
WYO		1.15AM			7.45AM	6.25AM	DN-R BEND Nd	147.3	7.25PM			6.10AM				
BETWEEN METOLIUS AND BEND TRAINS WILL BE GOVERNED BY TIME-TABLE, RULES AND REGULATIONS OF OREGON TRUNK RAILWAY																
WFYT		3.50AM	3.05AM	10.45PM	9.05AM	8.15AM	DN-R METOLIUS Ms	106.0	5.50PM	5.50AM	4.30AM	3.50AM				
291							2.5 AGENCY	103.5								
2,680 W		4.10	3.30	11.00	9.15	8.30	2.4 MADRAS Md	101.1	5.35	5.30	4.10	3.30				
2,480		4.30	3.50	11.15	9.25	8.45	5.7 PAXTON	95.4	5.20	5.10	3.50	3.15				
2,000 W		4.55	4.06	11.30	9.40	9.00	5.5 GATEWAY Gw	89.9	5.05	4.55	3.15	3.00				
1,280 WFP		5.35AM	4.30AM	11.52PM	10.00AM	9.20AM	5.7 TRUMAN	84.2								
							2.5 SOUTH JCT.	81.7	4.45PM	4.30AM	2.45AM	2.35AM				
BETWEEN NORTH JUNCTION AND SOUTH JUNCTION TRAINS WILL BE GOVERNED BY TIME-TABLE, RULES AND REGULATIONS OF OREGON TRUNK RAILWAY																
P		6.05AM		10.25AM	9.45AM	76.0	DN-R NORTH JCT. Jn	71.3	4.25PM			2.05AM				
1,100		6.10		10.30	9.50	77.1	2.9 COVE CREEK	70.2	4.20			2.00				
1,160		6.20		10.35	9.57	80.0	3.1 TWO SPRINGS	67.4	4.15			1.52				
475 P		6.45		10.55	10.17	88.1	3.1 McLENNAN	59.2	3.55			1.32				
1,150 WP		7.05		11.10	10.36	96.1	4.2 MAUPIN Hf	51.2	3.40			1.12				
							4.2 OAK SPRINGS	47.0								
		7.30		11.30	11.00	104.5	0.6 SHERARS BRIDGE	42.8	3.20			12.46				
1,290 WP		7.35		11.32	11.05	105.1	10.4 FARGHER	42.2	3.15			12.43				
1,200		8.05		11.52AM	11.35	115.5	4.8 TUNNEL ONE	31.8	2.50			12.13AM				
							0.8 KETCHUM	27.0								
1,160 P		8.20		12.05PM	11.50AM	121.1	11.9 BLUFFS	26.2	2.35			11.55PM				
2,650 W		8.55		12.30	12.25PM	133.0	1.2 MAYS	14.3	2.05			11.22				
							1.2 HARRIS	13.1								
310		9.10		12.45	12.40	137.4	3.2 FREE BRIDGE	9.9	1.55			11.10				
WY		9.40AM			1.15PM	1.15PM	9.0 SHERMAN Vc	0.0	1.35PM			10.40PM				
		Arrive Daily	Arrive Daily Ex. Mon.	Arrive Daily	Arrive Daily Ex. Sun.	Arrive Sun.	(147.3)		Leave Daily	Leave Daily	Leave Daily Ex. Mon.	Leave Daily				
		(8.25) 17.5	(1.25) 17.1	(1.07) 21.7	(5.30) 26.8	(6.50) 21.5	..... Thru Time.....	(5.50) 25.2	(1.20) 18.2	(1.45) 13.8	(7.30) 19.6				
Time shown at Bend is for information only. At Bend trains will be governed by time-table, rules and regulations of Oregon Trunk Ry. Westward trains are superior to trains of the same class in the opposite direction.—See Rule 72.																

		WESTWARD					CONDON BRANCH					EASTWARD				
		SECOND CLASS		FIRST CLASS			Distance from Condon	Time-Table No. 73 June 1, 1930	Distance from Arlington	SECOND CLASS						
		127 Mixed	107 Mixed							108 Mixed	128 Mixed					
Length of sidings in feet and location of water, fuel, interlocking plants, turning stations, scales and tele-phones.		Leave Daily Ex. Sun.	Leave Sun.				Arrive Mon.	Arrive Daily Ex. Mon.								
5,260 WFP		10.00PM	11.15PM	0.0	DN-R CONDON Cd	44.5	7.15AM	7.15AM								
1,278		10.25	11.35	8.2	8.2 GWENDOLEN	36.3	6.35	6.35								
1,515		10.40	11.50PM	12.2	4.0 SPEECE	32.3	6.20	6.20								
1,533		10.55	12.05AM	15.9	3.7 CLEM	28.6	6.01	6.01								
1,515 W		11.25	12.20	20.1	4.2 MIKKALO	24.4	5.40	5.40								
1,400		11.50PM	12.35	24.8	4.7 BARNETT	19.7	5.20	5.20								
682 W		12.15AM	12.45	28.5	3.7 ROCK CREEK	16.0	5.01	5.01								
122				30.8	2.3 SMYTHE	13.7										
1,504		12.45	1.10	37.2	0.4 SHUTLER	7.3	4.35	4.35								
6,920 WFTF		1.30AM	1.30AM	44.5	7.3 ARLINGTON Mx	0.0	4.05AM	4.05AM								
		Arrive Daily Ex. Mon.	Arrive Mon.		(44.5)		Leave Mon.	Leave Daily Ex. Mon.								
		(3.30) 12.7	(2.15) 19.8	..... Thru Time.....	(3.10) 14.0	(3.10) 14.0									
Westward trains are superior to trains of the same class in the opposite direction.—See Rule 72.																

		WESTWARD					SHANIKO BRANCH					EASTWARD				
		SECOND CLASS			Distance from Shaniko	Time-Table No. 73 June 1, 1930	Distance from Biggs	SECOND CLASS								
		125 Mixed	123 Mixed	105 Passenger				106 Passenger	124 Mixed	126 Mixed						
Length of sidings in feet and location of water, fuel, interlocking plants, turning stations, scales and tele-phones.		Leave Tues., Thurs. & Sat.	Leave Mon., Wed. & Fri.	Leave Sun.	Arrive Mon.	Arrive Sun., Wed. & Fri.	Arrive Tues., Thurs. & Sat.									
3,385 WFP		7.45PM			0.0	DN-R SHANIKO Sh	69.7				8.20AM					
345					6.7	KELSEY	63.0									
620	f	8.20			12.6	WILCOX	57.1			f	7.40					
902	s	8.35			17.2	KENT	52.5			s	7.25					
650	f	8.55			23.9	BOURBON	45.8			f	7.15					
1,370 WT		9.15	9.15PM	9.15PM	31.2	DN-R GRASS VALLEY Vy	38.5	6.45AM	6.45AM	6.45AM						
Spur	f	9.40	9.40	9.40	38.4	ERSKINE	31.3	6.10	6.10	6.10						
2,422 W	s	10.20	10.20	10.20	42.7	DN-R MORO Mr	27.0	5.50	5.50	5.50						
834	f	10.35	10.35	10.35	45.8	DE MOSS	23.9	5.35	5.35	5.35						
Spur	f	10.50	10.50	10.50	49.7	NISH	20.0	5.20	5.20	5.20						
Spur		11.00	11.00	11.00	50.5	HAY CANYON	19.2	5.15	5.15	5.15						
Spur	f	11.20	11.20	11.20	54.1	SANDON	15.6	5.00	5.00	5.00						
1,010	s	11.30PM	11.30PM	11.30PM	55.5	KLONDIKE	14.2	4.55	4.55	4.55						
1,758 W	s	12.05AM	12.05AM	12.05AM	60.0	DN-R WASCO Wa	9.7	4.30	4.30	4.30						
Spur	f	12.25	12.25	12.25	62.6	SINK	7.1	4.20	4.20	4.20						
565	f	12.35	12.35	12.35	64.5	THORNBERRY	5.2	4.10	4.10	4.10						
6,656 WFP		1.15AM	1.15AM	1.15AM	69.7	DN-R BIGGS Bx	0.0	3.50AM	3.50AM	3.50AM						
		Arrive Wed., Fri. & Sun.	Arrive Tues. & Sat.	Arrive Mon.	(69.7)		Leave Mon.	Leave Sun., Wed. & Fri.	Leave Tues., Thurs. & Sat.							
		(5.30) 12.4	(4.00) 9.6	(4.00) 9.6	..... Thru Time.....	(2.55) 13.2	(2.55) 13.2	(4.30) 15.1							
Westward trains are superior to trains of the same class in the opposite direction.—See Rule 72.																

		WESTWARD					HEPPNER BRANCH					EASTWARD				
		SECOND CLASS		Distance from Heppner	Time-Table No. 73 June 1, 1930	Distance from Heppner Jct.	SECOND CLASS									
		129 Mixed	109 Passenger				110 Passenger	130 Mixed								
Length of sidings in feet and location of water, fuel, interlocking plants, turning stations, scales and tele-phones.		Leave Daily Ex. Sun.	Leave Sun.	Arrive Mon.	Arrive Daily Ex. Mon.	Arrive Mon.	Arrive Daily Ex. Mon.									
2,867 WFTY		10.00PM	11.30PM	0.0	DN-R HEPPNER Hr	45.2	5.40AM	5.40AM								
1,029		10.30	11.50PM	8.9	8.9 LEXINGTON	36.3	5.10	5.10								
471 P		10.45	12.05AM	14.2	2.7 JORDAN	31.0	4.55	4.55								
1,150 W		11.20	12.15	16.9	2.7 IONE On	28.3	4.40	4.40								
132		11.35	12.25	20.0	3.1 McNAB	25.2	4.25	4.25								
835		11.55PM	12.38	25.4	5.4 MORGAN	19.8	4.12	4.12								
263		12.15AM	12.43	27.5	2.1 MORSIL	17.7	4.05	4.05								
330 W		12.30	12.52	30.7	3.2 CECIL	14.5	3.55	3.55								
158		12.40	1.00	34.3	3.6 EWING	10.9	3.45	3.45								
734		12.55	1.10	38.4	4.1 RHEA	6.8	3.35	3.35								
136				42.2	3.8 HARRIETT	3.0										
1,780 TP		1.25AM	1.25AM	45.2	3.0 DN-R HEPPNER JCT. Wj	0.0	3.10AM	3.10AM								
		Arrive Daily Ex. Mon.	Arrive Mon.		(45.2)	Leave Mon.	Leave Daily Ex. Mon.									
		(3.25) 13.2	(1.55) 23.5	..... Thru Time.....	(2.30) 18.1	(2.30) 18.1									
Westward trains are superior to trains of the same class in the opposite direction.—See Rule 72.																

WESTWARD		GRAY'S HARBOR BRANCH				EASTWARD				WESTWARD		TONO BRANCH		EASTWARD		
SECOND CLASS		FIRST CLASS				Time-Table No. 73 June 1, 1930	FIRST CLASS				SECOND CLASS		Time-Table No. 73 June 1, 1930	EASTWARD		
987	463	415		577	416		578			988	462					
Way Freight	CMSt.P&P Fast Frt.	CMSt.P&P Passenger		Mixed	CMSt.P&P Passenger		Passenger			Way Freight	CMSt.P&P Fast Frt.					
Leave Daily Ex. Sun.	Leave Daily Ex. Sun.	Leave Daily		Leave Daily	Arrive Daily	Arrive Daily			Arrive Daily Ex. Sun.	Arrive Daily Ex. Sun.						
WFTYOP	10.00AM	3.00AM				DN-R	CENTRALIA	Ca	57.5	8.20PM						

BETWEEN BLAKESLEE JUNCTION AND CENTRALIA, TRAINS WILL BE GOVERNED BY TIME-TABLE, RULES AND REGULATIONS OF NORTHERN PACIFIC RY.

IP	10.15AM				3.15AM	2.4	BLAKESLEE JUNCTION	55.1		1.30AM		8.08PM
						2.4	N. P. CROSSING	55.1				
						2.4	C. M. ST. P. & P. CROSSING	55.1				
1,359 P	10.35				f 3.21	5.0	D GALVIN Rk	52.5	f 1.23			7.58
2,285 P	10.55	2.43AM			f 3.35	12.2	R HELSING JUNCTION	45.3	2.15PM f 1.05			7.38
2,680 WP	11.15	2.50			s 3.20 s 3.43	13.7	DN INDEPENDENCE Nd	43.8	s 2.10 s 1.00			7.30
1,129 P	11.30	3.05			f 3.30 f 3.55	18.3	BALCH	39.2	f 1.56 f 12.44			7.15
Spur						20.2	SPRUCETON	37.3				7.40
2,718 P	11.47AM	3.20			f 3.37 f 4.03	22.2	CEDARVILLE	35.3	f 1.48 f 12.36			7.00
Spur						23.6	CRAFTSDALE	33.9				7.30
2,687 P	12.05PM	3.35			f 3.45 f 4.11	26.3	LANKNER	31.2	f 1.41 f 12.26			6.45
Spur						28.2	BALLAST	29.3				7.20
738	12.15	3.42			3.50 f 4.16	28.9	RONY	28.6	1.36 12.20			6.36
2,353 P	12.25	3.50			f 3.53 f 4.21	30.8	SAGINAW	26.7	f 1.33 f 12.15			6.30
I						30.5	SCHAFFER BROS. CROSSING	26.0				7.10
Spur WP	12.35	3.55			f 3.58 f 4.26	32.5	SOUTH ELMA	25.0	f 1.30 f 12.10			6.20
1,747 P	12.50	4.05			f 4.04 f 4.36	36.0	FULLER	21.5	f 1.25 f 12.02AM			6.05
2,744	1.13	4.30			f 4.17 f 4.51	42.3	D SOUTH MONTESANO Mo	15.2	f 1.13 f 11.50PM			5.45
						42.3	D SOUTH MONTESANO Mo	15.2				6.30
						43.8	MONTESANO	16.7				
2,744	1.13	4.30			f 4.17 f 4.51	42.3	D SOUTH MONTESANO Mo	15.2	f 1.13 f 11.50			5.45
1,523 P	1.30	4.35			f 4.20 f 4.56	43.8	MELBOURNE	13.7	f 1.10 f 11.45			5.35
217						45.3	TINGLE	12.2				6.14
1,751 P	1.55	4.45			f 4.26 f 5.02	46.7	PREACHER'S SLOUGH	10.8	f 1.02 f 11.35			5.20
1,294						48.8	BLUE SLOUGH	8.7				5.50
6,107 WFTYOP	2.30	5.00			s 4.37 s 5.19	51.2	D-R COSMOPOLIS Ca	6.3	s 12.50 s 11.25			5.00
						53.3	N. P. CROSSING	4.2				5.35
4,135 WIYOP	3.10PM	5.15AM			4.48PM 5.30AM	53.9	DN-R ABERDEEN Sa	3.6	12.42PM 11.15PM			4.48PM 5.20PM

BETWEEN WABASH AND CENTRALIA TRAINS WILL BE GOVERNED BY TIME-TABLE, RULES AND REGULATIONS OF NORTHERN PACIFIC RY.

WFYOTP		8.0	DN-R CENTRALIA	Ds	0.0
					(8.0)

Eastward trains are superior to trains of the same class in the opposite direction.—See Rule 72.

WESTWARD PRIMO BRANCH EASTWARD

WESTWARD		PRIMO BRANCH		EASTWARD	
		Time-Table No. 73 June 1, 1930			
		STATIONS			
			PRIMO		13.1
6,540	0.0		MIDSON		11.6
Spur	1.5		ARCTIC		7.3
Spur	5.8		BRIDGES		5.2
1,002 (W.M.P. 4.5)	7.9		COSMOPOLIS		0.0
6,107 WFTYOP	13.1	D-R	(13.1)		

Eastward trains are superior to trains of the same class in the opposite direction.—See Rule 72.

BETWEEN ABERDEEN AND HOQUIAM, TRAINS WILL BE GOVERNED BY TIME-TABLE, RULES AND REGULATIONS OF NORTHERN PACIFIC RY.

WFTYOP	3.25PM	5.45AM			5.00PM	6.05AM	57.5	DN-R HOQUIAM	Ho	0.0	12.30PM	11.00PM			4.25PM	5.00PM
	Arrive Daily Ex. Sun.	Arrive Daily Ex. Sun.			Arrive Daily	Arrive Daily		(57.5)			Leave Daily	Leave Daily			Leave Daily Ex. Sun.	Leave Daily Ex. Sun.
	(5.25) 10.6	(3.02) 14.9			(1.45) 25.9	(3.05) 18.6					(1.45) 25.9	(2.45) 20.9			(3.55) 14.8	(3.00) 15.1

Time shown at Hoquiam and Centralia is for information only. At Hoquiam and Centralia trains will be governed by time-table, rules and regulations of Northern Pacific Ry.

Eastward trains are superior to trains of the same class in the opposite direction.—See Rule 72.

WESTWARD OLYMPIA BRANCH EASTWARD

WESTWARD		OLYMPIA BRANCH				EASTWARD	
FIRST CLASS		Time-Table No. 73 June 1, 1930				FIRST CLASS	
		STATIONS					
	121 Mixed						122 Mixed
	Leave Daily						Arrive Daily
PY	2.20PM	0.0	DN-R CHAMBERS PRAIRIE	Ma	7.4		1.25PM
Spur		1.8	KNAUER		5.6		
		7.3	N. P. CROSSING		5.5		
PWFY	2.45PM	7.4	D-R OLYMPIA	Oa	0.0		1.00PM
	Arrive Daily		(7.4)				Leave Daily

(0.25) 17.8 Thru Time (0.25) 17.8
Average Speed per Hour

Eastward trains are superior to trains of the same class in the opposite direction.—See Rule 72.

FIRST DIVISION

SPECIAL RULES

2 (R). Time Inspectors are located as shown below:

R. V. Owens, General Supervisor of Time Service, Omaha.
 Portland.....Belding & Saxton
 Portland.....N. L. Nielson
 Portland.....W. L. Young
 The Dalles.....Norman E. Potter
 Seattle.....Arnt Setter
 Tacoma.....S. Grimstead
 Centralia.....C. R. Ahern
 Heppner.....J. O. Peterson
 Hoquiam.....F. W. Straub
 Aberdeen.....S. J. Stieglitz
 Olympia.....Talbot Bros., Inc.

3 (R). Standard clocks are located as shown below:

Umatilla.....Telegraph Office
 Umatilla.....Enginemen's Register Room
 Heppner.....Telegraph Office
 Arlington.....Telegraph Office
 Biggs.....Telegraph Office
 The Dalles....."WH" Telegraph Office
 The Dalles....."DK" Telegraph Office
 Portland (Joint).....N. P. T. Co. Telegraph Office
 Portland.....Dispatcher's Office
 Albina.....Yard Telegraph Office
 Albina.....Enginemen's Register Room
 Seattle (Joint).....Union Station Telegraph Office
 Argo.....Yard Office
 Centralia (Joint).....N. P. Ry. Telegraph Office
 Olympia.....Telegraph Office
 Hoquiam (Joint).....N. P. Ry. Telegraph Office
 Aberdeen.....Telegraph Office
 Cosmopolis.....Telegraph Office
 Bend (Joint).....O. T. Ry. Telegraph Office

9 (R). Lights will not be kept burning at night in train order signals on branch lines when operators are not on duty, and trains will be governed by the day indication.

10 (h). At night, a yellow light on a dwarf signal, on a "call-on" signal, or on a "short-arm" signal of an interlocking plant, indicates "proceed at slow speed."

17 (C). When rules require headlight to be displayed, electric headlights will be dimmed under conditions outlined below, except in foggy or stormy weather or when other conditions make it inadvisable:

In yards where yard engines are employed and at stations where switching is being done;

At meeting points, until the train to be met is clear of the main track;

When standing;

On two or more tracks when approaching trains running in opposite direction.

These instructions do not supersede or modify those contained in Rules 17 and D-17.

27 (A). In block signal limits, trains will not be required to stop for a switch light not burning at night, when it can be seen that the switch is in proper position.

28 (R). ADDITIONAL FLAG STOPS TO PICK UP REVENUE PASSENGERS.

TRAIN	STOPS	PASSENGERS FOR
6	Between Portland and Umatilla	Transfer to No. 76 at Umatilla enroute to destination served by that train.
12	Between Portland and Umatilla	Points north of Ayer.
19	Between Messner and Sherman	Bend Branch.
23	Between The Dalles and Troutdale	Portland.
23	Irrigon	The Dalles or west thereof.
23	Rufus	The Dalles or west thereof.

ADDITIONAL FLAG STOPS TO DISCHARGE REVENUE PASSENGERS.

TRAIN	STOPS	PASSENGERS FROM
11	Any station	Third Division.
17	Any station	Cheyenne or points east or south thereof.
19	Any station	East of Stanfield.
23	Any station	North of Umatilla and from Heppner, Shaniko and Condon Branches.
23	Irrigon	East of Pendleton.
24	Any station	Shaniko, Condon and Heppner Branches.
24	Bridal Veil, on Saturday and Sunday	Any station.
24	Multnomah Falls, on Saturday	Any station.
20	Viento	Any station.

ADDITIONAL FLAG STOPS for REVENUE PASSENGERS, MAIL and EXPRESS.

TRAIN	STOPS	TO AND FROM
27	Oak Springs	Any station.
27	Ketchum	Any station.
27	Harris	Any station.
29	Oak Springs	Any station.
29	Ketchum	Any station.
29	Harris	Any station.
30	Oak Springs	Any station.
30	Ketchum	Any station.
30	Harris	Any station.
102	Truman	Any station.
103	Truman	Any station.
27	Truman	Any station.
29	Truman	Any station.
30	Truman	Any station.
19	Corbett	Any station.
19	Latourell	Any station.
19	Multnomah Falls	Any station.
19	Warrendale	Any station.
20	Corbett	Any station.
20	Latourell	Any station.
20	Multnomah Falls	Any station.
20	Warrendale	Any station.
27	Seufert	Any station.
27	Big Eddy	Any station.
27	Dillon	Any station.
27	Tumwater	Any station.
29	Seufert	Any station.
29	Big Eddy	Any station.
29	Dillon	Any station.
29	Tumwater	Any station.
30	Seufert	Any station.
30	Big Eddy	Any station.
30	Dillon	Any station.
30	Tumwater	Any station.
415	Tingle	Any station.
416	Tingle	Any station.
577	Tingle	Any station.
578	Tingle	Any station.

Note.—No. 6 will stop on flag at any station to load and unload express.

No. 19 will stop at Boardman, Blalock and Rufus to load and unload mail and express.

No. 23 will stop at Irrigon to load and unload mail and express.

No. 24 will stop at Irrigon for mail and express.

No. 20 will stop on flag at mail crane at Wyeth to load and unload bulky or fragile parcel post mail, when necessary.

83 (E). Train registers will not be used by train or engine men as a means of identifying extra trains.

83 (R). Clearance card (Form 2643) must be received as follows:

At Black River, by all westward trains;
 At Centralia, by all westward Grays Harbor Branch trains originating at Blakeslee Jet.;
 At Centralia, by all eastward Tono Branch trains originating at Wabash;
 At Independence, by all westward C. M. St. P. & P. trains originating at Helsing Jet.;
 At North Jet., by all eastward Oregon Trunk Ry. trains originating at South Jet.;
 At North Jet., by all O.-W. R. R. & N. trains.

Northern Pacific clearance card A (Form 1357A) must be received as follows:

At Reservation, by all eastward second class and extra trains passing through Tacoma;
 At Northern Pacific Fifteenth Street telegraph office, by all eastward second class and extra trains originating at Tacoma.

Trains are not required to receive clearance card (Form 2643) as per Rule 83(A) as follows:

At Argo, all westward C. M. St. P. & P. passenger trains;
 At Tono, all westward trains;
 At Primo, all westward trains;
 At North Portland Jet., all westward trains;
 At Albina, all Sixth Subdivision trains.

83 (S). Trains must ascertain whether all superior trains due have left as follows:

At Northern Pacific Fifteenth Street telegraph office, Tacoma, all eastward second class and extra trains originating at Tacoma;
 At Reservation, all eastward second class and extra trains, passing through Tacoma.

Trains are not required to ascertain whether all trains due, which are superior, or of the same class, have arrived or left as per Rule 83 as follows:

At Peninsula Jct., by all westward trains and engines but may proceed Peninsula Jct. to St. Johns Jct. on receipt of staff;

At St. Johns Jct., by all westward trains and engines but may proceed St. Johns Jct. to Albina or Portland on clear staff station semaphore at St. Johns Jct., being governed by Rule 93;

At Argo, by all westward C. M. St. P. & P. passenger trains but may proceed Argo to Seattle on clear interlocking signal indication at Argo, and run with current of traffic, being governed by Rule 93.

Trains will register by registering ticket (Form 2642) as follows:

At Black River, all first class trains and Nos. 691 and 692 or manifest extras;
 At Messner, Nos. 5, 11, 12, 17 and 18.

Train registering exceptions:

At Albina, only trains which originate or terminate at that point will register;
 At Argo, only trains which originate or terminate in O.-W. R. R. & N. yard at that point will register;

At Wabash, Tono Branch trains originating or terminating at that point will register in O.-W. R. R. & N. train register located in N. P. Ry. telegraph office, Centralia;

At Blakeslee Jet., Grays Harbor Branch trains originating or terminating that point will register in O.-W. R. R. & N. train register located in N. P. Ry. telegraph office, Centralia;

At North Portland Jet., Fifth Subdivision trains originating or terminating that point will register in O.-W. R. R. & N. train register located in S. P. & S. Ry. telegraph office, Vancouver.

83 (T). To enable eastward trains originating at Seattle to comply with Rule 83 when passing from double to single track at Argo, train register at Seattle will also serve as train register for Argo, and conductors and enginemen must identify westward trains which are superior or of the same class between Seattle and Argo. Trains displaying signals between Seattle and Argo will whistle as per Rule 14 (k).

To enable westward trains originating at The Dalles to comply with Rule 83 when passing from double to single track at Crates, train register at The Dalles will also serve as train register for Crates, and conductors and enginemen must identify eastward trains which are superior or of the same class between The Dalles and Crates. Trains displaying signals between The Dalles and Crates will whistle as per Rule 14 (k).

83 (U). Movement of westward C. M. St. P. & P. trains or engines from Junction Switch at Helsing Junction to Independence station will be governed by Home Block signal 125. If this signal fails to change to proceed position when junction switch is opened, Grays Harbor Branch main track must not be occupied until protected as required by Rule 509 against eastward trains and Rule 99 against westward trains on Grays Harbor Branch. Movement of westward O.-W. R. R. & N. trains or engines on Grays Harbor Branch main track from Junction Switch at Helsing Junction to Independence station will be governed by Home Block signal 127. When a train or engine is stopped by this signal Rule 509 will govern. Trains and engines moving eastward from Independence will be governed by Home Block signal 132 located just east of that point, complying with Block Signal Rules.

83 (V). Movement of westward Primo Branch trains or engines from Junction Switch, Cosmopolis, to Cosmopolis station, will be governed by Home Block signal 499. If this signal fails to change to proceed position when junction switch is opened, Grays Harbor Branch main track must not be occupied until protected as required by Rule 509 against eastward trains and Rule 99 against westward trains on Grays Harbor Branch. Trains and engines moving eastward from Cosmopolis will be governed by Home Block signal 508 located just east of that point, and westward Grays Harbor Branch trains and engines will be governed by Home Block signal 501, located just west of Blue Slough, complying with Block Signal Rules.

84 (B). On freight trains approaching sidings if everything is all right, conductors will, if practicable, signal enginemen to proceed. This will be answered by 14 (b).

90 (R). When necessary to take siding at the following points, trains will use the tracks specified, unless otherwise instructed:

Messner— Eastward passenger, mail, or express trains, use Umatilla-Messner line entering at junction switch;

Hood River—All westward trains, use siding No. 2 (south of main track);
 Eastward passenger, mail, and express trains, use cross-over from main track to siding No. 1 (north of main track);
 Eastward freight trains, use siding No. 1 (north of main track).

93 (R). Yard limits are established, and defined by yard limit signs, at the following stations:

Umatilla	Seattle	Shutler	Nish	Gateway
Messner	Argo	Rock Creek	DeMoss	Paxton
Arlington	Black River	Barnett	Moro	Madras
Biggs (for Shaniko Branch only)	Tacoma	Mikkalo	Erskine	Chambers Prairie
Sherman	Rhea	Clem	Grass Valley	Olympia
The Dalles	Ewing	Speece	Bourbon	Galvin
Hood River	Cecil	Gwendolen	Kent	Helsing Jct.
Troutdale	Morsil	Condon	Wilcox	Independence
East Portland	Morgan	Thornberry	Shaniko	South Montesano
Portland	McNab	Sink	Fargher	Montesano
Kenton	Ione	Wasco	Maupin	Preachers Slough
Peninsula Jct.	Jordan	Klondike	North Jct.	Cosmopolis
North Portland Jct.	Lexington	Sandon	South Jct.	Aberdeen
Albina	Heppner	Hay Canyon	Heppner Jct. (for Heppner Branch only)	Primo

93 (S). On parallel tracks between Portland and East Portland or Harding St., and between switch 750 feet west of Millroad and St. Johns Jet., trains and engines must keep to the right, except that yard engines may move against the current of traffic between East Portland and Harding Street and between switch 750 feet west of Millroad and St. Johns Jet. without being preceded by a flagman, except when on the time of a first class train.

Within yard limits at The Dalles, trains and engines must keep to the right except that they may move against the current of traffic between Tie Plant switch at east end of yard and crossover west of passenger station, without being preceded by a flagman, except when on the time of a first class train.

Within yard limits at Seattle, trains and engines must keep to the right.

93 (T). In the absence of previous instructions trains heading in at east end of The Dalles yard will use telephone located at cross-over to secure instructions as to which track is to be used.

93 (R). The Washington State Law governing movement of trains over railroad crossings at grade is as follows:

"Trains shall stop at railroad crossings:— All railroads and street railroads, operating in this State shall cause their trains and cars to come to a full stop at a distance not greater than five hundred (500) feet before crossing the tracks of another railroad crossing at grade, excepting at crossings where there are established signal towers and signal men, interlocking plants or gates."

After stop has been made for railroad crossings at grade engineman will sound proceed signal as per Rule 14 (b) before proceeding.

98 (S). JUNCTIONS AND RAILROAD CROSSINGS.

Location	Railroad Crossed or Junction with	Trains Which Have Precedence	How Governed
Messner.	Second Division.		Junction Switch is located in front of depot. Westward trains will stop clear of junction switch, until it has been ascertained whether all trains due, which are superior, or of the same class, have arrived or left.
Peninsula Jct.	Seattle Line.		Train Staff System.
Portland (Front St.)	United Ry.	O.-W. R. R. & N.	All trains and engines must approach prepared to stop before passing over crossing, expecting to find crossing occupied.
East Portland.	S. P.		Interlocking Plant.
East Portland (East 2nd St. and Hawthorne Ave.)	P. E. P.	O.-W. R. R. & N.	All trains and engines stop before crossing.
East Portland (East 2nd St. and Morrison St.)	P. E. P.	O.-W. R. R. & N.	All trains and engines stop before crossing.
East Portland (East 2nd St. between East Salmon and East Madison Sts.)	S. P. & S.	O.-W. R. R. & N.	All trains and engines stop before crossing.
Albina (Larabee and Delay Sts.)	P. E. P.	P. E. P.	All trains and engines stop before crossing.
Albina (Greeley St.)	P. E. P. Gate.	O.-W. R. R. & N.	All trains and engines stop before crossing.
North Portland Jet.	S. P. & S.		Interlocking Plant.
Blakeslee Jct.	C. M. St. P. & P. -N. P.		Interlocking Plant.
Schafer Bros. Crossing.	Schafer Bros. Logging Ry.	O.-W. R. R. & N.	Cabin Interlocking Plant.
South Aberdeen (Boone St.)	G. H. L. & P.		All trains and engines stop before crossing.
South Aberdeen (Donovan Mill)	N. P.	N. P.	All trains and engines stop before crossing.
Cosmopolis (Tail of Wye)	G. H. L. & P.		All trains and engines stop before crossing.

SPECIAL RULES

98 (S). JUNCTIONS AND RAILROAD CROSSINGS.

Locations	Railroad Crossed or Junction with	Trains Which Have Precedence	How Governed
Olympia (Jefferson and 4th Sts.)	O. P. C.		All trains and engines stop before crossing.
Olympia (Jefferson and 7th Sts.)	N. P.	O.-W. R. R. & N.	All trains and engines stop before crossing.
Tacoma (11th St.)	City Ry.	O.-W. R. R. & N.	All trains and engines stop before crossing.
Tacoma (St. Paul Ave.)	City Ry.	O.-W. R. R. & N.	All trains and engines stop before crossing.
Tacoma (Yard)	N. P.	N. P.	Cabin Interlocking Plant.
Tacoma (Fir Door Spur.)	N. P.	N. P.	All trains and engines stop before crossing.
Tacoma (Dempsey Mill Spur.)	N. P.	N. P.	All trains and engines stop before crossing.
Reservation	N. P.		Interlocking Plant.
Black River.	C. M. St. P. & P. -P. C.		Interlocking Plant.
Argo.	N. P. -C. M. St. P. & P. -P. C.		Interlocking Plant.
Seattle (8th Ave., South)	City Ry.		All trains and engines stop before crossing.
Seattle (East Marginal Way)	City Ry.		All trains and engines stop before crossing.
Seattle (Spokane Ave. and 5th Ave.)	N. P.		All trains and engines stop before crossing.
Seattle (Spokane Ave. and Whatcom Ave.)	N. P.		All trains and engines stop before crossing.
Seattle (Whatcom Ave. and Holgate St.)	N. P.		All trains and engines stop before crossing.
Seattle (Whatcom Ave. and Massachusetts St.)	N. P.		All trains and engines stop before crossing.
Seattle (Railroad Ave. and Atlantic St.)	N. P.		All trains and engines stop before crossing.

98 (T). When pulling into a siding, rear end of train must be clear of main track, when practicable, before train is stopped.

Trainmen and enginemen will be held responsible for striking cars on sidings or for damage done in making emergency stop to avoid striking cars. If view is obstructed, brakeman must be sent ahead.

As an additional protection, when cars are set out on siding where dispatcher cannot be notified so that train order may be immediately put out covering, one torpedo must be placed at each end of siding a sufficient distance to permit train heading in to stop. (See Transportation Department Rule 825.)

These instructions will not apply on the Shaniko, Condon and Heppner Branches.

98 (U). All trains and engines will stop at established stop boards and not proceed onto draw span of bridge between Montesano and South Montesano until they have called for, received and acknowledged proceed signal from bridge operator, and in addition will be governed by position of derail switch located 128 feet east and derail switch located 195 feet west of trestle leading to drawbridge. Between the hours of 5:30 P. M. and 8:30 A. M. drawbridge span will be left open for river traffic and derail switches will be set in derail position. If necessary for train or engine to use drawbridge between these hours, engineman will sound one long, one short and one long (— o —) blasts of engine whistle to call bridge operator on duty, and if bridge operator does not respond promptly person in charge of train or engine will send a member of train or engine crew to bridge operator's house to notify him that bridge is to be used.

98 (V). All trains and engines will stop at established stop boards and not proceed onto draw span of bridge at Tacoma until they have called for, received and acknowledged proceed signal from bridge tender.

101 (H). Trains will be handled with caution where sand is blowing, when weather is foggy or stormy and at points where there is liability of track being obstructed, losing time if necessary to insure safety.

FIRST DIVISION

D-102 (A). If a train is parted or is doubling from any cause and the front portion passes any switch of a cross-over, siding or other route via which it would be possible for another train or engine to enter, it must not move against the current of traffic in returning to the rear portion, unless a flagman is protecting the return movement at any and all such switches, or unless the return movement has been authorized and protected by dispatcher.

103 (A). Cars must not be handled ahead of engine between stations, except in work train service, or, when necessary to take them to or from a spur. When this is done, it must be for no greater distance than necessary, and the movement must be at slow speed, with air brakes cut in and operative on cars ahead of the engine.

A trainman will ride the rear of tank of a road engine backing up without cars when switching at stations or moving in yards.

103 (B). Engines must not be run under any coal mine tipple, nor over hopper tracks at coal chutes, and air must be working on all cars before starting to put up coal.

104 (R). Switches will be set normally:
 At Messner, junction switch, —for Second Division;
 At Crates, —for eastward trains (spring switch);
 At Troutdale, junction switch, —for line via Graham;
 At Reservation, junction switch, —for O.-W. R. R. & N. main track;
 At Tacoma Jet., junction switch, —for C. M. St. P. & P. track;
 At Moro, —for house track, which will be used as main track;
 At Helsing Jet., junction switch, —for O.-W. R. R. & N. main track;
 At Aberdeen, double track switch, —for eastward trains;
 (250 feet east of depot),
 At South Montesano, wye switch —for west leg of wye;
 on Montesano Branch,
 At Millroad, westbound main track switch, —for Albina freight yard.

104 (S). Engines and trains trailing through spring switch at Crates, must not make reverse movement until the switch has been properly lined by hand.

152 (R). THE SPEED SHOWN BELOW MUST NOT BE EXCEEDED:

(Speed shown under heading of "Psgr." includes mail and express trains, and under heading of "Frt." includes mixed trains and light engines with or without cabooses.)

Location	Maximum Speed Miles Per Hour		Remarks
	Psgr.	Frt.	
At any point.	60	35	
At any point.	50	35	With Mikado class engines with 63 inch drivers.
At any point.	45	35	With Mikado class engines with 57 inch drivers.
At any point.	45	35	With 2-10-2 class engines.
At any point.	35	35	With Consolidation class engines.
At any point.	35	35	With Mallet engines.
At any point.	35		With C.M. St. P. & P. Class L engines
At any point.	35		With C. M. St. P. & P. Class K 1 engines, equipped with swing motion trucks.
At any point.	25		With C. M. St. P. & P. Class K 1 engines, equipped with rigid trucks.
At any point.	35		With C.M. St. P. & P. freight engines with single trucks when handling or helping passenger trains.
At any point.	20	20	Engines backing up with or without cars.
At any point.		25	When handling steam derrick.
At any point.		20	Trains handling logs.
Through truss bridges.		6	Trains handling logs.
Within yard limits.	30	15	Speed must be as much slower as conditions may require.

FIRST DIVISION
152 (R).—Continued.

Location	Maximum Speed Miles Per Hour		Remarks
	Psg.	Frt.	
On sidings.	15	15	
Interlocking Plants.	15	15	
Railroad crossings at grade.	15	15	
On 5 and 6 degree curves.	40	30	
On 7 and 8 degree curves.	35	25	
On curves of 7 degrees and over.	25		With 2-10-2 class engines.
On 9 and 10 degree curves.	30	20	
The Dalles.	12	12	Over street crossings.
Crates.	30	30	Westward—over spring switch at end of double track.
Crates.	15	15	Eastward—over spring switch at end of double track.
Between Eagle Creek and Mile Post 42.5.	35	25	
Portland.	10	10	Over street crossings.
East Portland Hill.	20		With helper on rear of train.
East Portland.	15	15	Over frogs and crossings east end of Willamette River Bridge.
East Portland.		8	Entering East Portland interlocking plant from Second Street, No. 10 lead, S. P. Yard or back track.
Tunnel between Peninsula Jct. and St. Johns Jct.	40	30	
Heppler Branch.	30	25	
Heppler Branch, between Heppler Jct. and M. P. 23.	35	35	
Condon Branch, between Arlington and M. P. 2.	25	20	
Between M. P. 2 and Condon.	25	25	
Between Rock Creek and Barnett.		15	On descending grades.
Between Mikkalo and Speece.		15	On descending grades.
Shaniko Branch.	30	25	
Between Biggs and Thornberry.	20	10	On descending grade.
Between Thornberry and Wasco.	30	20	On descending grade.
Between Sandon and Hay Canyon.	30	20	On descending grade.
Between Moro and M. P. 33.	30	20	On descending grade.
Between Sherman and North Jct.	35	30	
Between South Jct. and Paxton.	30	25	
Between Paxton and Metolius.	40	30	
Between Madras and Metolius.	25	25	Over Willow Creek Viaduct.
Between Centralia and Hoquiam.	40	35	
Preacher's Slough.		6	On Rollways.
Blue Slough.		6	On Rollways.
Cosmopolis.	20	15	Within city limits.

SPECIAL RULES

Location	Maximum Speed Miles Per Hour		Remarks
	Psg.	Frt.	
Cosmopolis.		8	With logs within city limits.
Aberdeen.	20	20	Within city limits.
Aberdeen.	10	10	Over street crossings.
Primo Branch.	25	20	
Tono Branch.	35	25	
Olympia Branch.	35	25	

Note.—No. 24 will slow down passing station at Troutdale to speed of 12 miles per hour to permit exchange of U. S. Mail.
Figures on stake at beginning of curve indicate degree of curve.

152 (S). All trains and engines must be under control through sidings, interlocking plants and yard limits. Under control means to be able to stop within one-half the distance track is seen to be clear.

201 (R). Unless otherwise directed, between Troutdale and Portland or Albina all freight trains will run via Kenton and all passenger trains will run via Graham.

221 (R). Trains will be governed by indication of train order signal and will not sound whistle signal as required by Rule 221(A) as follows:

- Arlington —all trains;
- Hood River —all trains;
- Independence —all trains;
- Cosmopolis —all trains;
- Aberdeen —all eastward trains.

AUTOMATIC TRAIN CONTROL RULES COVERING AUTOMATIC TRAIN CONTROL OPERATION BETWEEN PORTLAND AND THE DALLES VIA GRAHAM

Automatic Train Control Rules Definition

302. AUTOMATIC TRAIN CONTROL: A method of mechanically controlling train movements, independent of the engineman, should it become necessary.

CAB INDICATOR



INDICATION—
PROCEED:

INDICATION—
STOP OR REDUCE SPEED.

302 (A).

Enginemen and Trainmen

302 (B). Automatic train control cab indicators supplement automatic block signals in governing the use of blocks, and do not supersede the superiority of trains, nor dispense with the observance of rules governing the use of automatic block or interlocking signals or other signals whenever and wherever they may be required, except to the extent specifically authorized in Special Rule 302(G).

302 (C). The normal indication of automatic train control cab indicator is "Proceed."

302 (D). When the cab indicator shows red, engineman will acknowledge with acknowledging valve, and if speed is in excess of twenty (20) miles an hour, must immediately reduce speed to less than twenty (20) miles an hour.

302 (E). When cab indicator changes from green to red after having passed home block signal in "proceed" position, engineman must immediately reduce speed to six (6) miles an hour and not exceed that speed to the next signal in advance, expecting to find a train in the block, broken rail, obstruction, or switch not properly set.

302 (F). If cab indicator changes from green to red when within view of a distant block signal in advance, or after passing a distant block signal indicating "proceed", engineman will proceed at such speed below twenty (20) miles an hour as will enable him to stop before reaching the next home block signal in advance.

302 (G). When the speed of a train is restricted by automatic train control, or train is proceeding after having been stopped by automatic home block signal or automatic train control, if the cab indicator changes from red to green, the train may resume normal speed after engine has moved one train length beyond the point where the cab indicator changed from red to green.

302 (H). Within automatic train control territory, when moving over a track which is not equipped with automatic train control circuits, the train or engine must be kept below a speed of twenty (20) miles an hour.

When an engine is running backward, or is pushing cars, it must proceed at a speed less than twenty (20) miles an hour, to avoid an automatic brake application.

302 (I). Trains entering automatic train control territory at Troutdale failing to receive green or red indication after passing off of cut-in circuit will pull down on the cut-out switch for thirty seconds and observe if black hand on duplex gauge starts downward. If cab indicator does not show a red indication or black hand on duplex gauge does not start downward when cut-out switch is down, automatic train control equipment on engine is inoperative and should be cut out. Train control must not be cut out until after consulting the train dispatcher.

302 (J). An engineman of a train entering a block as provided for by these rules, will be held responsible in case of accident caused by overtaking a preceding train. This does not relieve enginemen and trainmen from protecting their trains as required by the rules.

302 (K). When engines are double-headed in train control territory between The Dalles, Portland and Albina, non-train control engine must be placed behind the train control engine.

302 (L). If the indications of the cab indicator and the automatic block signal do not correspond, engineman must promptly report the fact to the train dispatcher from the first available point of communication, giving signal and engine number.

302 (M). Automatic train control equipment on an engine is locked or sealed in cut-in position. In case train control equipment of the engine fails, or track circuits become inoperative, pneumatic portion may be cut out. This will not be done until advising with train dispatcher.

302 (N). At the first available telephone booth or telegraph office, engineer will consult with dispatcher to ascertain if dispatcher has knowledge as to trouble with train control circuit or track being blocked and if dispatcher has no knowledge as to track being blocked train may continue from that point at normal speed, being governed by automatic block signals.

302 (O). If after proceeding, cab indicator for a distance of five miles displays green indication continuously, engineer will cut in pneumatic equipment.

302 (P). When dispatcher has knowledge that train control power has failed he will so advise train and enginemen by train order; engineman will then cut out train control pneumatically. When cab indicator shows green, indicating that power is restored, engineman will then cut in train control pneumatically, and notify trainmen at first opportunity.

302 (Q). Double-header cut-out cock on engines equipped with automatic train control must not be manipulated in order to forestall an automatic train control application.

302 (R). Station baggagemen at The Dalles Passenger Depot on engines run through The Dalles will unlock and cut out pneumatic portion of automatic train control equipment on eastward engines, and will cut in and lock pneumatic portion of automatic train control equipment on westward engines. After the equipment has been cut in, engineman will pull down on cut out switch in cab, and allow an automatic brake application. Enginemen will be held responsible for proper cutting in and cutting out of train control equipment.

GENERAL TRAIN CONTROL RULES

302 (S). Train control wires are located on top cross arm of automatic block signal pole line between Portland and The Dalles and carry a current of 2300 volts.

This current would be fatal to anyone coming in contact with it, and these wires must not be touched by persons or portable telephone and telegraph poles, nor by any other rods, tools or wires, etc., nor struck by booms of steam derricks, locomotive cranes, pile drivers, ditchers, etc.

De-energizing Line

302 (T). When employes are to perform any work where they are liable to come in contact with wires, or when necessary to perform work around or near train control wires with any machinery or appliances, which are liable to come in contact with them, Dispatcher must be notified. Dispatcher will then notify Signal Maintainer and before such work is started, Signal Maintainer must de-energize the portion of line where work is to be performed. Person in charge must not start such work until he has received written instructions from the signal maintainer that he has de-energized the line.

Re-energizing Line

302 (U). The Signal Maintainer, after de-energizing line as above, must not re-energize the line until he has received written statement from the person in charge of the work that no more work will be performed where employes, machinery or appliances are liable to come in contact with train control wires. Maintainer, after re-energizing line, will so advise dispatcher.

Trouble on Wires

302 (V). All employees are to report to the Train Dispatcher, as soon as possible, any unusual appearances or conditions of any of the wires or their supports, including collection of sleet on wires, so that any needed attention may be given without delay.

In case high voltage train control wires come in contact with, or are liable to come in contact with, cars or structures, have line de-energized by communicating with train dispatcher or any operator and a signal maintainer, pull wires clear of cars or structures, with pole or any other non-conductor device, and use Pyrene extinguisher if available to extinguish fire.

Employees are reminded that any wire or wires may become crossed with the high voltage wires and great care must be exercised to avoid coming in contact with any wires whatsoever which might cause a hazard.

The circuits are located between Portland and Troutdale with power feeding line at Mile Post 6 and between Troutdale and The Dalles with power feeding line at Hood River.

Operator at Hood River can have circuits between Troutdale and The Dalles de-energized. Towerman at East Portland can have circuits between Portland and Troutdale de-energized.

TRAIN STAFF SYSTEM GOVERNING MOVEMENT OF TRAINS BETWEEN ST. JOHNS JUNCTION AND PENINSULA JUNCTION

409 (A). St. Johns Junction and Peninsula Junction are staff stations.

409 (B). Advance staff signal on North Portland line is located 2000 feet from east portal of tunnel.

Advance staff signal on Kenton line is located 2000 feet from east portal of tunnel. Advance staff signal on Albina-Portland line is located 2050 feet west of St. Johns Junction staff station.

409 (C). The possession of a staff is authority for a train or engine to proceed regardless of opposing trains or engines, providing the semaphore signal at staff station indicates "proceed." Normal indication of semaphore signal at staff station is "stop."

409 (D). Advance staff signals will indicate whether or not staff is ready for delivery. Normal indication of these signals is "stop." Approaching advance staff signals engineers will call for signal indication by sounding four short blasts of whistle (Rule 14-j). When signal is changed from "stop" to "proceed," engineer will acknowledge same by sounding two short blasts of whistle (Rule 14-g) and may then proceed, obtaining staff at staff station. Trains or engines must not pass an advance staff signal or staff station semaphore indicating "stop," except by train order authority as provided in Special Rule 409 (R).

409 (E). Advance staff signal west of St. Johns Junction will govern movement of trains and engines approaching St. Johns Junction from the west on right-hand parallel track, and dwarf signal will govern on left-hand parallel track when authorized movements against current of traffic are made approaching St. Johns Junction.

409 (F). Approaching Peninsula Junction staff station from Barnes via "Wye 2" trains and engines will stop at established stop board and will not pass stop board until staff has been obtained from staff signalman at Peninsula Junction and staff station semaphore is changed to indicate "proceed."

409 (G). Engines approaching St. Johns Junction staff station from St. Johns industrial lead will stop at established stop board and not pass stop board for movement to Albina until proceed signal is received from signalman at St. Johns Junction staff station. For movement to Peninsula Junction Special Rule 409 (C) will govern, but engines must not pass stop board until staff has been obtained from staff signalman.

409 (H). Trains or engines on siding at St. Johns Junction or Peninsula Junction will not occupy or foul main track within staff limits until staff has been obtained.

409 (I). Delivery of the staff to the engineman will be either by staff crane, hand of block signalman or the conductor or head brakeman of his own train, and engineman must not accept delivery of the staff from any other person; signalman will not deliver staff to any other than these employees.

409 (J). When the staff has been obtained by the engineer he will announce the fact by sounding one short, one long and one short blast of the whistle (o — o).

409 (K). Signalmen will remain in view until the rear car has passed and will give proceed signal to trainmen to indicate that staff has been delivered to engineer.

409 (L). Engineer must either hand the staff to the signalman or throw it on the ground immediately in front of the staff station. A staff must not be transferred from one train or engine to another, but must be delivered to the signalman who will place it in the staff machine before delivery to another train or engine and must know that all of the train or cars clear the block before he inserts staff in the instrument.

409 (M). When two or more engines are coupled, the engineer of the leading engine will handle the staff but the engineer of the other engine or engines must know that engineer of leading engine has the staff before proceeding.

409 (N). In case a train parts or it is necessary to double, the staff must be retained by the engineer until rear portion of train is moving out of block.

409 (O). In case of delay to a train the staff must be surrendered upon request of signalman, which will cancel authority to proceed.

SPECIAL RULES

409 (P). Cars will not be shoved through the tunnel ahead of engine, except business cars equipped with headlight.

409 (Q). Headlights will be kept burning on all engines while between St. Johns Junction and Peninsula Junction both day and night.

409 (R). In case of failure of staff apparatus, trains and engines will be moved by 31 form of train order through the tunnel until apparatus has been repaired. This order must be given jointly to conductor and engineer of the train and signalmen at both ends of the block. Before issuing train orders substituting staff system, train dispatcher must ascertain that block is clear. In such event, a train order takes the place of the staff.

409 (S). If a train is held by staff signal to exceed ten minutes, the conductor must ascertain the cause.

509 (E). Relative to Rule 509 (B), except in yard limits, flagman must be sent ahead at night, even though the next signal in advance is in plain view and the track can be seen to be clear.

509 (F). When a train is stopped by a block signal, on double track when ready to proceed as per Rule 509 (C) and on single track when the flagman is not to be sent ahead as per Rule 509 (B), two long sounds of the engine whistle 14 (b) must be given before the train proceeds.

509 (G). On single track, when a light engine or a motor train with only one trainman, is stopped by a block signal under conditions making it necessary to send a flagman ahead to comply with Rule 509 (A) or 509 (E), after placing one torpedo one-fourth mile from rear of train, it may proceed at a slow speed, not exceeding six miles an hour, expecting to find a train in the block, broken rail, obstruction, or switch not properly set, without sending a flagman ahead.

509 (H). When a train is stopped by a block signal at a meeting or passing point on single track under conditions making it necessary to send a flagman ahead to comply with Rule 509 (A) or 509 (E), if the engineman of the train which is stopped is verbally informed by a trainman of the train on the siding that his train has more cars than the siding will hold, the train which is to use the main track may proceed at slow speed not exceeding six miles an hour to the next signal, expecting to find a train in the block, broken rail, obstruction, or switch not properly set, without sending a flagman ahead.

509 (S). Junction switch at Troutdale is electrically controlled from the depot by the Operator. Upper arm of Signal 157, located just east of junction switch, governs westward movement on The Dalles-Portland line and lower arm governs westward movement from The Dalles-Portland line to Kenton line. Clear indication of Signal 156 will authorize eastward trains from Kenton line to proceed to telegraph office without protecting against first class trains.

Sanders on engines must be kept closed while passing over this switch.

525. If a Home Block Signal fails to indicate "stop" or a Distant Block Signal fails to indicate "caution" when a block is entered, a member of the crew must be left at the signal; the train dispatcher must be notified from the first available point of communication and report must be sent to the Superintendent by wire. The employe left at the signal must stop and notify all trains moving in the direction governed by that signal and must remain there until relieved by an employe of the Signal Department or by instructions from the proper officer.

525 (A). If a Home Block Signal fails to indicate "stop," or a Distant Block Signal fails to indicate "caution" when a light engine, or a motor train with only one trainman, enters a block, the train dispatcher must be notified from the first available point of communication, and report must be sent to the Superintendent by wire.

663 (R). Interlocking plant, Schafer Bros. Crossing: Signal will automatically change from "stop" to "proceed" upon approach of train provided crossing is not occupied. Should signal fail to so change and crossing is not occupied, a member of the crew will examine derails and if found in non-derailing position, and no one in interlocking station, train may proceed through plant under flag protection at speed not exceeding six miles per hour.

674 (R). To indicate the route to be used through interlocking plants, the following engine and motor whistle signals will be used at East Portland: (The signals prescribed are illustrated by "o" for short sounds; "—" for longer sounds.)

- For Portland —
- For Albina — o
- For Graham —
- For S. P. Main Line o —
- For East Second St. o o —
- For S. P. Yard o — o
- For Transfer Track — o —
- For East Side Freight Terminal o o —

713 (A). A member of the crew must be stationed on the rear end in position to give or receive necessary signals when meeting trains on double track or when meeting trains on sidings. At stations where there is an agent or operator on duty, to be on the rear end when passing depot and at blind sidings to be on rear end when passing station board, except that when the train has an observation or special car, he must be on front platform of the rear car or on platform of the car next ahead. On passenger trains, the vestibule door must be open so that hot boxes or other defects may be detected.

FIRST DIVISION

720 (R). Passengers will not be carried on freight trains, except persons in charge of special freight, employes with annual passes, or employes with trip passes when traveling on company business, between stations at which the train stops.

802 (A). At stations, when one or more cars are being switched or pushed over a road crossing not protected by watchman or employe assigned as such, a member of the crew must precede the movement and act as crossing watchman. He should not get on the leading end of car until it has passed over the crossing. This rule will also apply to back-up movement of road engine where a man is required to ride rear of tank.

When a train is parted to clear a public crossing, or is standing near such crossing, a trainman must act as crossing watchman when a train or engine is approaching on a siding or main track.

Where a crossing watchman is on duty, trainman must not give signal for highway traffic to come ahead.

802 (R). At 15th St., Tacoma, all trains and engines must stop and a member of the crew must be sent ahead to act as crossing watchman.

820 (R). Allowance for empty and underloaded cars as indicated below must be reported as required by Instruction 24 on Form 1216 "Conductor's Car and Tonnage Report."

	For each empty or loaded car weighing less than 40,000 lbs. (including light weight of car)	For each empty or loaded car weighing between 40,000 and 50,000 lbs. (including light weight of car)
Albina to Troutdale	6000 lbs.	3000 lbs.
East Portland to Graham	3000 "	
Bonneville to Cascade Locks	3000 "	
The Dalles to Seufert	6000 "	3000 "
Umatilla to Arlington	6000 "	3000 "
The Dalles to Dodson	6000 "	3000 "
Troutdale to Clarnie	6000 "	3000 "
Albina to Kalama	6000 "	3000 "
Kalama to Vader	6000 "	3000 "
Vader to Napavine	3000 "	
Centralia to Tacoma	6000 "	3000 "
Tacoma to Centralia	6000 "	3000 "
Centralia to Napavine	3000 "	
Napavine to Vancouver	6000 "	3000 "
Sherman to North Jct.	6000 "	3000 "
North Jct. to Bend	3000 "	
Biggs to Shaniko	3000 "	
Arlington to Condon	3000 "	
Heppner Jct. to Heppner	6000 "	3000 "
Hoquiam to Cosmopolis	3000 "	
Cosmopolis to Centralia	6000 "	3000 "
Cosmopolis to Primo	6000 "	3000 "
Primo to Cosmopolis	3000 "	
Centralia to Tono	6000 "	3000 "
Olympia to Chambers Prairie	6000 "	3000 "

826 (R). When employes, passengers, or others are injured, call the nearest Railroad Surgeon. If the persons injured are not employes, they should be sent to their homes or placed in charge of Local Relief Authorities, after immediate necessary attention has been given by the Railroad Surgeon.

When necessary to call Surgeons, other than those regularly employed by the Railroad, it should be with the distinct understanding that their services will not be required after arrival of the Railroad Surgeon.

FIRST DIVISION

Railroad Surgeons are located as shown below:

NAME	TITLE	PLACE	TERRITORY
Donald H. Jessop...	Chief Surgeon...	Portland, Ore.	Portland.
C. L. Booth.....	Assistant Surgeon.	Portland, Ore...	Portland.
Archie Van Cleve....	Assistant Surgeon.	Portland, Ore...	Portland.
J. C. Ghormley.....	Assistant Surgeon.	Portland, Ore...	East Portland south of Sullivan's Gulch.
Carl H. Bastron.....	Assistant Surgeon.	Portland, Ore...	East Portland north of Sullivan's Gulch.
Richard N. Jacobs...	Assistant Surgeon.	Portland, Ore...	East Portland north of Sullivan's Gulch.
Harry M. Bouvy.....	Specialist.....	Portland, Ore...	Portland.
J. W. McCollom.....	Specialist.....	Portland, Ore...	Portland.
H. L. Dumble.....	District Surgeon..	Hood River, Ore.	Portland to The Dalles.
Reuter, Thompson, Coberth, Griffith & Taylor.....	District Surgeons.	The Dalles, Ore.	Hood River to Umatilla.
French & Young.....	Specialists.....	The Dalles, Ore.	Hood River to Umatilla.
J. C. & G. V. Vandervert.....	District Surgeons.	Bend, Ore.....	Sherman to Bend.
C. L. Poley.....	District Surgeon..	Grass Valley, Ore.....	Biggs to Shaniko.
J. W. Donnelly.....	District Surgeon..	Arlington, Ore..	The Dalles to Umatilla and Arlington to Condon.
J. V. Wilhelm.....	District Surgeon..	Condon, Ore....	Arlington to Condon.
A. D. McMurdo.....	District Surgeon..	Heppner, Ore...	Heppner Jet. to Heppner.
Alexander Reid.....	District Surgeon..	Umatilla, Ore...	Umatilla to Stanfield.
J. B. Blair.....	District Surgeon..	Vancouver, Wash.....	Albina to Kalama.
W. R. Scott.....	District Surgeon..	Centralia, Wash.	Winlock to Tenino, Centralia to South Elma and Tono Branch.
L. R. Lightfoot.....	District Surgeon..	Cosmopolis, Wash.....	South Elma to Aberdeen.
I. R. Watkins.....	District Surgeon..	Aberdeen, Wash.	Cosmopolis to Aberdeen.
H. C. Watkins.....	District Surgeon..	Hoquiam, Wash.	Centralia to Hoquiam.
W. L. Bridgford.....	District Surgeon..	Olympia, Wash..	Chambers Prairie to Olympia.
C. P. Gammon.....	District Surgeon..	Tacoma, Wash..	Tenino to Auburn.
Montgomery Russell.	Division Surgeon.	Seattle, Wash...	Tacoma to Seattle.
F. R. Underwood....	District Surgeon..	Seattle, Wash...	Tacoma to Seattle.
S. M. Samuels.....	Specialist.....	Seattle, Wash...	Portland to Seattle.

865 (A). Trainmen, enginemen, yardmen, agents, and other employees who in any way handle or care for explosives and other dangerous articles must familiarize themselves with the regulations and instructions governing the handling of them.

Conductors must notify enginemen of the presence and location in the train of cars containing explosives and of loaded placarded tank cars before leaving the initial station or station where such cars are picked up.

Cars placarded "Explosives" must be placed in through freight trains near the middle of the train and must be not nearer than the 16th car from the engine, electric locomotive, or motor car, nor the 11th car from the caboose, if the length of train will permit.

SPECIAL RULES

Cars placarded "Explosives" may be placed in local freight, local pick-up, and local set-out trains not nearer than the second car from the engine, electric locomotive, or motor car, or caboose when placing them near the middle of the train would require additional switching at way stations.

Cars placarded "Explosives" must not be placed in through or local trains next to cars placarded "Inflammable" or "Corrosive Liquid," nor next to empty or loaded tank cars, wooden frame flat or gondola cars, nor next to carloads of pipe, lumber, poles, iron, steel, or similar articles liable to shift and break through end of placarded car; nor next to cars containing lighted heaters, stoves or lanterns.

Placarded tank cars must not be placed in trains next to cars placarded "Explosives" nor next to cars containing lighted heaters, stoves or lanterns, and when practicable must be placed not nearer than the sixth car from the engine, electric locomotive or motor car, or caboose, nor next to gondola or flat cars with lading such as logs, lumber, rails or pipe that is likely to shift.

Empty tank cars must not be moved from stations unless dome cover and all outlets have been replaced and wrenched tight, shipping tags and cards removed from car, and "Inflammable" placards removed or replaced by "Dangerous Empty" placards.

When placards become detached in transit, conductor must see that they are replaced upon arrival at the next terminal, if in through trains, or at first station stop if in local freight trains.

865 (B). Cars designated below must be handled in rear of train, and next to caboose in the order named:

- Drover cars,
- Cars with emergency drawbars,
- Outfit cars,
- Emigrant movables,
- All wooden underframe cars,
- Any car tagged with Form 4725 reading, "Handle only at rear end of train,"
- Scale test cars.

Drover cars, occupied or unoccupied, must be placed in trains next ahead of caboose.

Trains containing drover cars must not be pushed by an engine at the rear. If it becomes necessary, in an emergency, to clear main track by use of an engine at rear of the train, the drover cars must first be vacated.

When a helper engine is used, it must be cut in ahead of drover cars.

Switching must not be done with drover cars, except in handling to or from trains.

Live stock must be handled in head end of train when practicable, and stock cars loaded with scrap, boards, engine wood, long rods, bolts, or any commodity which might work out of openings in sides or ends of car, must not be moved until these openings are properly slatted.

Freight cars with bad order draw bars may be handled in trains under the following conditions:

- (a) When not containing live stock or perishables, may be chained up in train and handled to first available side track where must be set out to be repaired.
- (b) When containing live stock or perishables, may be chained up in train and handled to first repair point.
- (c) When containing any commodity or empty, may be handled behind the caboose to destination or to first terminal, provided the good draw bar can be coupled to the caboose and in addition is secured by chain, and has air and hand brakes operative. On ascending grades a trainman must ride the car.

A red flag by day or a red light by night must be displayed on the rear of any car handled behind caboose.

877 (A). Employees must not go out on exterior of cab of, nor hang out from gangway or steps of, a moving engine for any purpose. When this is necessary, the engine must be stopped.

888 (A). While passing through cities and towns, there must be no failure to keep sharp lookout ahead on both sides of the engine. Firemen must do this in preference to other duties, except that they must keep the fire in such condition that there will be no loss of efficiency of the engine.

898 (A). Enginemen will give two long and two short sounds of engine or motor whistle when approaching a train which is stopped on opposite track on double track, and when approaching a train which is on a siding on single or double track.

On double track special care must be taken to sound warning signals, and particularly when trains or engines are approaching highway crossings from opposite directions at the same time.

Work trains unloading ballast on double track, must stop when a train is passing on the opposite track.

899. Employees must inform themselves as to the location of all structures or obstructions where clearances are close, and must exercise care to avoid injury therefrom to themselves or others.

899 (R). Trainmen must not ride on the side of cars or engines while moving in trains on Bend and Shaniko Branches as there are a number of places on these branches where, on account of narrow cuts, there is impaired clearance.

AIR BRAKES

1014 (R). Passenger, freight and mixed trains will carry 90 pounds brake pipe pressure on Shaniko and Condon Branches and passenger and mixed trains will carry 90 pounds brake pipe pressure on Bend branch.

1048 (B). On freight and passenger trains when undesired quick or emergency action of brakes has occurred on service reduction, thereafter, before starting service reductions, enginemen will place brake valve in release position for two seconds then in running position for one second then in service position for the reduction. This to insure all triple valves being in release position at the time service reduction starts thereby tending to avoid quick action of the brakes when making service reduction.

1050 (G). Locomotive and tender brakes on engines helping or pushing trains will be operated in conjunction with the train brake.

1051 (R). Running test as prescribed in Rules 1051 and 1051 (A) of Operating Rules governing Air Brakes effective December 1, 1925, will be made before descending grades as follows:

- Fifth Subdivision, westward trains at Mile Post 6 east of Graham;
- Bend Branch, westward trains at Mile Post 100;
- Shaniko Branch, westward trains at Kent, Mile Post 34, Klondike and Wasco, and eastward trains at Sandon and Mile Post 35;
- Condon Branch, westward trains at Speece, Mikkalo and Shutler.

1057 (R). A trainman must be stationed on rear of train with hand on air valve of tail hose ready to apply emergency brake if it becomes necessary at the following points:

- Between Portland and East Portland —on all trains while passing over Willamette River Bridge;
- Between Montesano and South Montesano—on passenger trains backing up.

1059 (R). Westward freight and mixed trains must stop and trainmen will inspect and adjust piston travel at Barnett, Grass Valley, Thornberry and Madras.

1060 (B). Trainmen must know condition of hand brakes on freight cars that have air brakes cut out.

1066 (B). Freight trains consisting of more than twenty-five cars will cut off engine to take fuel, water or sand when stop must be made on descending grade, or where there is more than one engine on the train. Trains under similar conditions will also cut off way cars before making spot.

1077 (R). Retaining valves will be used on descending grades as follows:

- Shaniko Branch, on passenger trains Thornberry to Biggs, and on freight or mixed trains Mile Post 33 to Moro, Klondike to Biggs and Sandon to Hay Canyon, all retaining valves to be used;
- Condon Branch, on all trains Mile Post 35 to Mikkalo, Barnett to Rock Creek and Mile Post 2 to Arlington, all retaining valves to be used.

On Bend Branch on freight and mixed trains on descending grades between M. P. 100 and South Junction trains averaging not to exceed 50 gross tons per car may be handled without the use of retainer valves. Responsibility for use of retainer valves rests primarily with engineman and he will direct as to their use. However retaining valves must be used, if in the judgment of the conductor, their use is necessary. On trains averaging in excess of 50 gross tons per car, one-half of the retaining valves will be used consecutively from the head end of the train.

RATING OF ENGINES IN FREIGHT SERVICE IN TONS OF 2000 POUNDS

Total weight of train exclusive of engine and tender, which the different classes of engines will haul in each direction between stations named, under favorable weather conditions. A deduction of ten per cent may be made for time freight trains. Between stations for which no rating is shown maximum will apply.

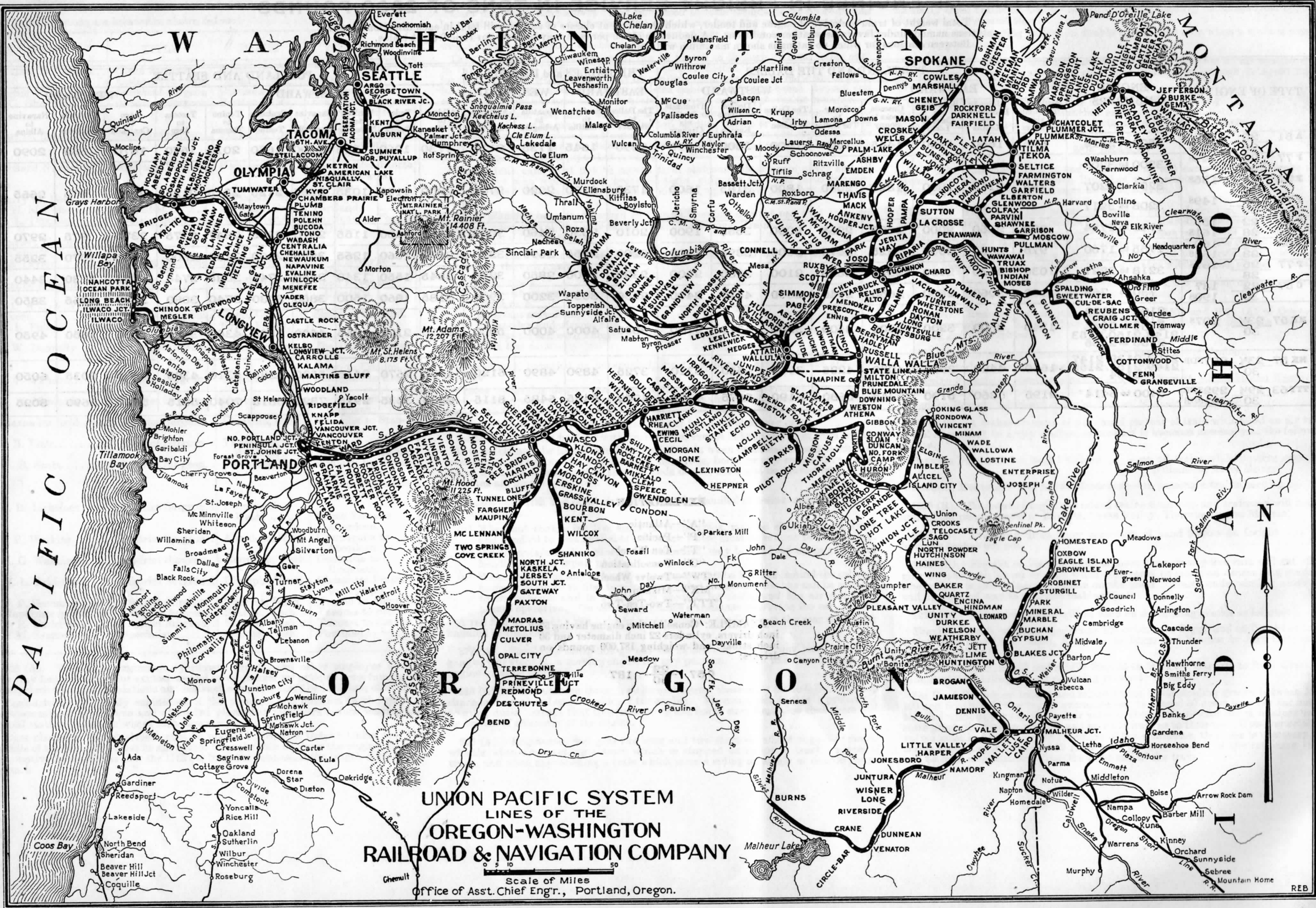
TYPE OF ENGINES	ENGINE NUMBERS	PORTLAND AND THE DALLES									THE DALLES and UMATILLA				PORTLAND AND SEATTLE									
		EASTWARD					WESTWARD				EASTWARD		WESTWARD		EASTWARD						WESTWARD			
		Portland to Troutdale via Graham	Albina to Bonneville via Kenton	Bonneville to Cascade Locks	Cascade Locks to Sonny	Sonny to The Dalles	The Dalles to Dodson	Dodson to Albina via Kenton	Troutdale to Portland via Graham	The Dalles to Seufert	Seufert to Umatilla	Umatilla to Arlington	Arlington to The Dalles	Albina to Vader	Vader to Winlock	Winlock to Napavine	Napavine to Centralia	Centralia to Tenino	Tenino to Tacoma	Tacoma to Argo	Argo to Centralia	Centralia to Napavine	Napavine to Albina	
A 81 $\frac{20}{28}$ 106 107 ^s	3500 to 3514	625	1660	1400	1445	1595	1400	2500	1295	1390	1645	1735	2115	1730	1060	815	2090	1670	2010	1670	1670	685	2090	
P 77 $\frac{22}{28}$ 143 ^s	3200 to 3203																							
P 77 $\frac{22}{28}$ 135 ^s	3204 to 3207	795	2115	1800	1825	2040	1800	3185	1600	1730	2100	2220	2700	2200	1190	1035	2665	2125	2515	2125	2125	875	2665	
P 77 $\frac{22}{28}$ 149 ^s	3208 to 3217																							
T 69 $\frac{22}{28}$ 159 161 ^s	1742 to 1754	890	2360	2000	2025	2265	2000	3555	1900	2010	2330	2460	3035	2460	1480	1155	2970	2375	2847	2375	2375	975	2970	
T 63 $\frac{22}{28}$ 160 162 ^s	1755 to 1760	975	2585	2000	2225	2475	2000	3895	1900	2200	2555	2690	3285	2690	1560	1265	3255	2600	3130	2600	2600	1070	3255	
P 77 $\frac{25}{28}$ 167 ^s	3218 to 3227	1030	2730	2100	2355	2625	2100	3185	2000	2320	2700	2850	3275	2845	1550	1340	3440	2745	3085	2745	2745	1130	3440	
C 57 $\frac{22}{30}$ 187 190 ^s	730 to 768	1150	3060	2600	2650	2940	2600	4610	2400	2650	3030	3200	3900	3185	1860	1500	3850	3080	3740	3080	3080	1265	3850	
MK 57 $\frac{23\frac{1}{2}}{30}$ 207 ^s	2100 to 2102 2104 to 2137 2139 to 2146 2148, 2150, 2153 2155 to 2165	1340	3600	3200	3300	3500	3200	5375	2700	3050	4000	4000	5000	3710	2175	1965	4500	3585	4360	3585	3585	1650	4950	
MK 57 $\frac{23\frac{1}{2}}{30}$ 207 ^s SDB	2103, 2138, 2147 2149, 2151, 2152 2154	1660	4420	3915	4030	4285	3915	6540	3310	3725	4890	4890	6120	4530	2670	2415	5520	4385	5310	4385	4385	2035	6050	
TTT 63 $\frac{29\frac{1}{2}}{30}$ 292 ^s SDB 301 ^s SDB	5400 to 5414	2195	5860	5190	5345	5680	5190	8675	4390	4940	6485	6485	8115	6005	3535	2975	7320	5815	7040	5815	5815	2690	8025	

EXPLANATION

- "A"—Atlantic
- "P"—Pacific
- "T"—Ten Wheel
- "C"—Consolidation
- "TW"—Twelve Wheel
- "MK"—Mikado
- "TTT"—Two-Ten-Two

EXAMPLE: Consolidation engine having 57 inch drivers, cylinders 22 inch diameter and 30 inch stroke, and weighing 187,000 pounds on drivers:

C 57 $\frac{22}{30}$ 187



UNION PACIFIC SYSTEM
Lines of the
OREGON-WASHINGTON
RAILROAD & NAVIGATION COMPANY
 Scale of Miles
 Office of Asst. Chief Engr., Portland, Oregon.